

Section 14

Hazards and Hazardous Materials

This section describes hazards and hazardous materials in the study area and evaluates the potential effects of environmental hazards and risks due to exposure to hazardous materials that could occur as a result of implementing the Delta Plan and the project alternatives. It describes the environmental setting, potential environmental impacts, and proposed mitigation measures.

The Delta Plan (the Proposed Project) does not propose implementation of any particular physical project; rather, it seeks to influence, either through limited policy regulation or through recommendations, other agencies to take certain actions that will lead to achieving the dual goals of Delta ecosystem protection and water supply reliability. Projects may include water and wastewater treatment plants; conveyance facilities, including pumping plants; surface water or groundwater storage facilities; ecosystem restoration projects; flood control levees; or recreation facilities. This is described in more detail in part 2.1 of Section 2A, Proposed Project and Alternatives and in Section 2B, Introduction to Resource Sections.

Construction-related impacts would be potentially significant, but could be reduced to less than significant when feasible mitigation measures can be implemented. The Delta Stewardship Council (Council) does not have the authority to require the adoption of mitigation in all cases. Therefore, some construction activities conducted by other agencies on the basis of Delta Plan recommendations (i.e., activities that are not covered actions), may not be mitigated to a less-than-significant level. This section evaluates and discloses the significance of impacts from hazards and hazardous materials before and after the implementation of mitigation measures.

14.1 Study Area

The study area is defined as the geographical area in which the majority of potential impacts are expected. The hazards and hazardous materials study area includes the Delta and Suisun Marsh. Counties located in the study area that have been researched for this document are Yolo, Sacramento, Contra Costa, San Joaquin, and Alameda. As described in Section 2A, Proposed Project and Alternatives, facilities could be constructed, modified, or reoperated in the Delta, Delta watershed, or areas located outside the Delta that use Delta water. While it is unclear where the Proposed Project might have effects outside the Delta, this section discusses the general types of hazards and hazardous materials effects that might occur in the Delta watershed and areas outside the Delta that use Delta water.

14.2 Regulatory Framework

Appendix D provides an overview of the plans, policies, and regulations relating to hazards and hazardous materials within the study area.

14.3 Background and Terminology

14.3.1 Hazardous Materials

Hazardous materials include chemicals and other substances defined as hazardous by federal and State laws and regulations. Hazards and hazardous materials are generally characterized by chemical and physical properties that cause a substance to be considered hazardous including toxicity, ignitability, corrosivity, and reactivity. Hazardous materials also include waste chemicals and spilled materials.

The State Water Resources Control Board (SWRCB) and Central Valley Regional Water Quality Control Board (RWQCB) have an ongoing program to establish water quality objectives to protect beneficial uses of surface water and groundwater. Existing programs have focused on hazardous substances from landfills, waste disposal sites, fuel storage, and industrial facilities. At this time, only one subbasin in the Central Valley is under study as priority basin (western San Joaquin Valley near Tracy). This program is being coordinated with the California Department of Public Health (CDPH) California Drinking Water Source Assessment and Protection Program that provides information to water users. Information from these programs is used by these agencies to establish cleanup programs to protect groundwater quality.

Various hazardous materials are present throughout the Delta and the Suisun Marsh area. Industries and other entities use many types of hazardous materials, ranging from fuels and solvents to radioactive materials. Numerous fuels, chemicals, and other hazardous materials are also transported via roadways and railways. At typical construction sites, materials that could be considered hazardous include fuels, motor oil, grease, various lubricants, solvents, soldering equipment, and glues. Additionally, excavation may expose buried hazardous materials resulting from prior use of the site or adjacent property.

Hazardous waste sites associated with agricultural production activities may include storage facilities and agricultural ponds or pits that are contaminated with fertilizers, pesticides, herbicides, or insecticides; leaking underground storage tanks (LUSTs) that contained petroleum products and other materials; leaking or abandoned pesticide storage containers; drainage water that contains fertilizers and pesticides; military bases and military cleanup sites; land disposal sites; and brownfield sites. Brownfield sites are defined as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance or waste, pollutant, or contaminant” (DTSC 2010).

14.3.2 Disease Vectors

The term “disease vector” is used to denote a carrier of disease organisms. The vector may be purely mechanical, as exemplified by houseflies spreading enteric organisms, or biological, wherein the disease organism multiplies or undergoes change within the vector, as exemplified by the development of viruses in mosquitoes.

In California, West Nile virus (WNV), St. Louis encephalitis (SLE), and western equine encephalomyelitis (WEE) are the three most important viral mosquito-borne diseases. The viruses that cause these diseases are maintained in nature through a mosquito-bird-mosquito cycle. Birds that are common throughout California, such as the American crow, English house sparrow and the house finch, are important carriers of these viruses. Horses are also particularly susceptible to infection with WNV and WEE, but there is a vaccine for horses to prevent these diseases (CDPH 2011a).

SLE virus was the most important mosquito-borne arbovirus in North America up until 1999, when WNV was introduced into the United States. Since 1945, 597 human cases of SLE have been reported in California. The last human case reported was in 1997, from Los Angeles County. In California, SLE

1 activity has not been detected in mosquito pools or sentinel chickens since 2003. The only prevention is
2 to prevent mosquito bites. There is no vaccine or preventive drug (CDPH 2011b).

3 WEE is spread primarily by the mosquito *Culex tarsalis*. Other mosquitoes (e.g., *Aedes* species) and,
4 occasionally, small, wild mammals also have been known to spread the virus. *C tarsalis* is a mosquito
5 that often is found on the West Coast of the United States and that prefers warm, moist environments. In
6 these locations, cycles of wild bird and mosquito interactions and infectivity allow the virus to remain
7 endemic. No cases of bird transmission of the disease have been reported, making mosquitoes the primary
8 vector and birds simply reservoirs. Epidemic outbreaks in the equine or pheasant population often precede
9 human epidemics of WEE.

10 WEE tends to have a sporadic or a consistent infectivity, based on the community. Sporadic cases have
11 occurred in the Sacramento Valley, California, but infection is consistent in Imperial Valley. A study of
12 WEE from 4 different regions of northern California revealed that the strains have evolved independently,
13 with little movement between regions. However, in southern California, the virus tends to circulate more
14 freely secondary to the movement of birds and mosquitoes. Most notably, WEE is able to survive a
15 wintering effect and to reappear in a similar region because of an ability to survive in the immature *Aedes*
16 larva and diapausing eggs. The summer bird– *C tarsalis* cycle that is then responsible for most infections
17 is secondary to viral amplification during the spring (EMedicine 2011).

18 In California, WNV is prevalent in a number of counties, and mosquitoes are considered the primary
19 vector of the disease. The life cycle of WNV involves the transmission of the virus from infected
20 mosquitoes to people and animals. Wild birds serve as the main source for the virus and can transmit the
21 virus to other birds or accidental hosts including humans or horses, which can become ill. There are four
22 distinct mosquito life stages; the first three life stages are aquatic, which means that all mosquitoes
23 require standing water to complete their life cycle. Any body of standing water that remains stagnant for
24 more than 3 days is considered a potential mosquito breeding site. Most mosquito species lay their eggs
25 on the surface of fresh stagnant water, although some species use damp soil or the base of grasses where
26 eggs can remain dormant for months or years before hatching. Areas that are flushed daily by tidal action
27 generally do not create mosquito breeding areas unless they contain depressions that hold water up to
28 5 days. In general, mosquito breeding habitat increases with more emergent vegetation and within water
29 bodies with water levels that slowly increase or recede compared to water levels that are stable or that
30 rapidly fluctuate.

31 Typically, water bodies with poor circulation, continual slow-changing water levels, higher temperatures,
32 and higher organic content produce greater numbers of mosquitoes. Most adult mosquitoes remain close
33 to their point of origin, and their traveling ability is heavily dependent on physical phenomena such as
34 wind. Some mosquitoes feed on mammalian and other animal hosts, and others feed on fruits and plant
35 nectars.

36 County vector control districts provide mosquito and other vector control.

37 14.3.3 Fire Protection

38 Fire protection and management in most counties of California is provided by numerous public and
39 private agencies. Many agencies provide structural and wildland fire-protection services. Generally,
40 structural fire protection is provided by fire departments in incorporated areas and by fire-protection
41 districts in unincorporated urban areas. Wildland fire protection is provided by County Park Districts,
42 County Fire Patrols, and the California Department of Forestry and Fire Protection (CAL FIRE). The
43 following discussion focuses on the characterization of fire hazards and the designated response areas for
44 responsible agencies as described by each county's fire-protection program in its general plan or
45 Environmental Impact Report (EIR) for the general plan. Additional information about fire departments
46 and districts is provided in Section 17, Public Services.

1 14.3.4 Methyl Mercury

2 Mercury contamination, most commonly the bioaccumulation of toxic methyl mercury in food webs, is a
3 public health problem in the San Francisco Bay-Delta estuary. Sources of methyl mercury in the
4 San Joaquin Delta waters include inputs from upstream watershed tributaries due to mining over the past
5 150 years and from sources within the Delta including wetlands and in-channel sediment. The Central
6 Valley RWQCB determined that the Delta is impaired by mercury and fish tissue data collected since
7 1970 in the Delta indicate that mercury levels exceed numeric criteria established for the protection of
8 human health and wildlife. A complete discussion of methyl mercury is located in Section 3, Water
9 Quality.

10 14.4 Environmental Setting

11 This subsection describes the hazards and hazardous materials in the study area and the potential impacts
12 could occur as a result of adopting the Delta Plan or implementing the alternatives.

13 14.4.1 Major Sources of Information

14 Each county's general plan, the EIR for the general plan, or a combination of both was used. These
15 documents emphasize certain hazards issues of particular importance to that county. Because the general
16 field of environmental hazards is extensive, each county will have their own set of hazardous materials
17 issues and some but not all counties will share common hazardous waste issues. Therefore not all county
18 plans list or discuss the same types of hazards, hazardous materials, vector or fire safety problems or
19 programs with the same level of detail. This section describes the existing environmental setting based on
20 the information from the general plans for Yolo, Sacramento, Contra Costa, San Joaquin, and Alameda
21 counties.

22 Vector information was obtained primarily from local vector abatement district Websites as cited. The
23 *Suisun Marsh Habitat Management Preservation and Restoration Plan Draft EIR /EIS 2010*
24 (Reclamation 2010) was used for mosquito and mosquito management information in the Suisun Marsh.
25 The SWRCB GeoTracker database was queried to determine the extent of registered hazardous sites
26 within each county that also occur within the general area of the Delta and Suisun Marsh boundary.

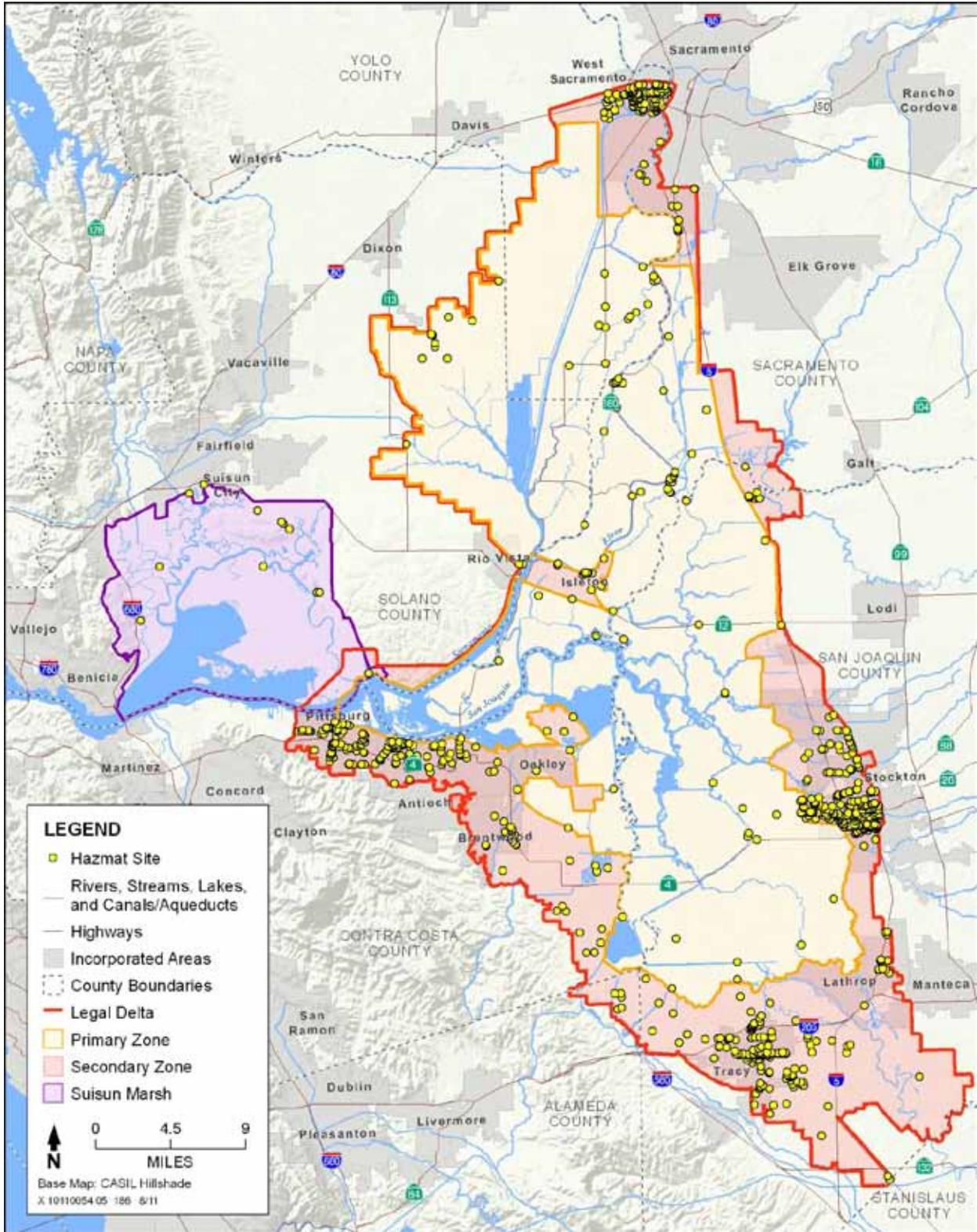
27 14.4.2 Delta and Suisun Marsh

28 14.4.2.1 Hazards

29 Hazardous waste sites in the Delta and Suisun Marsh area have been queried and are summarized in this
30 subsection, and characterize hazardous wastes, vectors, and fire hazards for each county in this area.
31 SWRCB's GeoTracker database was used to identify relevant hazards in and around the Delta and Suisun
32 Marsh (SWRCB 2011). This database contains records of registered hazardous materials for each county
33 in California, and was queried to determine the extent of registered hazardous sites within each county
34 that also occur within the Delta and Suisun Marsh footprint. These areas included cities and
35 unincorporated areas within each county. The query identified 100 hazardous waste sites in the Delta
36 Primary Zone, 874 in the Delta Secondary Zone, 11 in Suisun Marsh, and one site that is located in both
37 the Secondary Zone and Suisun Marsh (Figure 14-1).

38

1 Figure 14-1
2 Hazardous Material Sites
3 Source: SWRCB 2011



4

1 Of the counties queried, San Joaquin County contains the most hazardous waste sites. Most of these sites
2 are located in Stockton and Tracy and are LUST sites. Most sites in other counties are also LUST sites.
3 Although Alameda County contains 3,927 registered sites, only 5 are located in the Delta. Twenty land
4 disposal sites are scattered throughout the Delta area within the counties queried. The most are located in
5 San Joaquin County, and one disposal site is located in Holt on Whiskey Slough. In Sacramento County,
6 a land disposal is located at Sutter Island. In Contra Costa County, a land disposal is located at Dow
7 Chemical near New York Slough in Pittsburg.

8 **14.4.2.2 Sacramento County**

9 **14.4.2.2.1 Hazardous Materials**

10 *Hazardous Waste Storage and Disposal*

11 The Sacramento County Environmental Management Department (EMD) List of Potentially Hazardous
12 Materials recorded 8,671 potentially hazardous facilities in 2007. The definition of each type of facility is
13 given below.

- 14 " "Reportable quantities" facilities are contaminated facilities with reportable quantities used,
15 stored, or generated at the facility. A reported quantity is defined as equal to or greater than
16 55 gallons of a liquid, 200 cubic feet of a gas, and/or 500 pounds of a solid. These facilities are
17 required to file a business plan and obtain a hazardous materials permit from EMD.
- 18 " Hazardous waste generators are those that generate equal to or greater than 27 gallons per month.
- 19 " Aboveground storage tanks (ASTs) and underground storage tanks (USTs) are defined as
20 aboveground storage tanks and underground storage tanks. Currently, Sacramento County EMD
21 oversees the corrective action process at approximately 350 active release sites (Sacramento
22 County 2011).
- 23 " Tier facilities are those that generate hazardous waste but are able to recycle/reuse and/or
24 incorporate some of their initial waste into their final or finished product.
- 25 " California Accidental Release Prevention Program (CalARP) classified facilities are those that
26 use or store "extremely hazardous substances or waste" and are required to submit a Risk
27 Management Plan to Sacramento County EMD.

28 *Lead*

29 Lead exists in the paint of many homes built before 1978. If the paint is in good condition or is not
30 disturbed, it is usually not a problem. However when it is "disturbed" (scraped, dry sanded, or heated), it
31 is a potential hazard that can lead to human lead poisoning. Sacramento County EMD regulates this
32 hazardous material.

33 *Restricted Pesticides*

34 The California Department of Food and Agriculture regulates overall reported application of restricted
35 pesticides in Sacramento County.

36 *Landfills*

37 Hazards associated with landfills include risk of spreading disease, fire or explosion, airborne toxics,
38 degradation of water quality, and human exposure to locally confined hazardous or infectious wastes. The
39 10 landfills in Sacramento County are fully permitted through the State Integrated Waste Management
40 Board.

1 14.4.2.2 Vectors

2 The Sacramento-Yolo Mosquito and Vector Control District (SYMVCD) provides mosquito and other
3 vector control for Sacramento and Yolo counties. It provides ongoing surveillance of mosquitoes and
4 other vectors to determine the threat of disease transmission and decrease annoyance levels. It works with
5 private property owners, residents, social and political groups, and other governmental agencies. The
6 SYMVCD provides services to protect the local populations from a number of diseases transmitted by
7 mosquitoes such as WNV, WEE, canine heartworm, and malaria (SYMVCD 2011).

8 The SYMVCD operates a number of mosquito control programs including integrated pest management;
9 public information and education; bird surveillance; mosquito trap counts; biological control including
10 mosquitofish, physical control, and microbial and chemical control; and the swimming pool program.
11 As part of the SYMVCD's physical control, the first *Mosquito Reduction Best Management Practices*
12 was published in 2008. This document provides specific information regarding district policy, mosquito
13 biology, and various practices that can be useful in reducing mosquito populations. Land use-specific
14 sections provide guidance for landowners and land managers who deal with managed wetlands,
15 stormwater and wastewater systems, irrigated agriculture, rice production, dairies, swimming pools,
16 cemeteries, and tire storage facilities.

17 Flood farming is a common practice in Yolo and Sacramento counties. The practice of flooding
18 previously dry land during the early fall for attracting waterfowl for conservation and recreational
19 purposes creates favorable mosquito breeding habitats. Dense vegetation and slow speed of flooding can
20 also increase the numbers of mosquitoes produced and delay the success of other mosquito control
21 practices such as the use of larvicides and mosquitofish. The district works with private and public
22 landowners to determine when land will be flooded, and takes the appropriate measures for reducing
23 mosquito development. Some of the measures include microbial and chemical control, which is the use of
24 specific microbials and chemical compounds (insect growth regulators and insecticides) that eliminate
25 immature and adult mosquitoes. Microbial and chemical control methods are applied when biological and
26 physical control methods are unable to maintain mosquito numbers below a level that is considered
27 tolerable or when emergency control measures are needed to rapidly disrupt or end the transmission of
28 disease to humans. Larvicides target mosquito larvae and pupae in the water. Adulticides are insecticides
29 that reduce adult mosquito populations. All products applied by the district are registered with California
30 Environmental Protection Agency (SYMVCD 2011).

31 14.4.2.3 Fire Protection

32 The Sacramento City Fire Department provides a hazardous materials response team for fires involving
33 hazardous materials in both the incorporated and unincorporated areas of Sacramento County.

34 14.4.2.3 Yolo County

35 14.4.2.3.1 Hazard Materials

36 Businesses that store hazardous materials in excess of specified quantities are required to prepare a
37 Hazardous Materials Management Plan (HMMP), called a "Business Plan," and file it with the Yolo
38 County Environmental Health Department. As of 2009, approximately 1,200 facilities in Yolo County are
39 required to file a Business Plan with Yolo County Environmental Health Department. Under CalARP,
40 business that use large quantities of acutely hazardous materials are required to prepare an engineering
41 analysis of the potential accidental factors present at a business and the mitigation measures that would be
42 implemented to reduce the accident potential. Currently, 13 facilities in Yolo County participate in
43 CalARP.

1 *Underground Storage Tank Sites*

2 Yolo County regulates the construction, operation, repair, and removal of USTs in Yolo County through
3 its UST program. Yolo County Environmental Health Department maintains a list of LUSTs for the
4 county, and there are 113 permitted UST facilities in Yolo County.

5 *Aboveground Storage Tank Sites*

6 Facilities storing hazardous materials in ASTs are required by Yolo County Environmental Health
7 Department to obtain permits and submit to regular inspections. All facilities with ASTs operating at
8 an aggregate tank capacity of 1,320 gallons or more must complete a Spill Prevention Control and
9 Countermeasure plan to provide countermeasures in the event of a potential onsite release of hazardous
10 materials. These facilities also must file a storage statement, which SWRCB requires. There are
11 approximately 175 AST sites in Yolo County.

12 *Resource Conservation and Recovery Act Sites*

13 Businesses that generate more than 100 kilograms of hazardous waste per month or more than 1 kilogram
14 of acutely hazardous waste must be registered with the U.S. Environmental Protection Agency's
15 (USEPA) Resource Conservation and Recovery Act (RCRA) program and are subject to extensive
16 regulations regarding storage and disposal. In 2008, approximately 800 Yolo County businesses
17 generated hazardous waste, including 15 sites that classified as large-quantity generators, indicating that
18 they generated at least 1,000 kilograms of hazardous waste per month.

19 *Hazardous Materials Release Sites*

20 Currently, 405 hazardous materials release sites are in Yolo County; 291 are related to USTs and 171 are
21 currently under active regulatory oversight. Many of the leaking USTs are decades old, have failed, and
22 caused petroleum contamination in soils and groundwater. These releases are often discovered during
23 tank-removal or upgrade activities.

24 *Hazardous Waste Sites*

25 The California Department of Toxic Substance Control (DTSC) oversees 21 hazardous waste sites in
26 Yolo County; 5 hazardous waste facilities, 1 School Cleanup site, 8 State Response sites, and 6 Voluntary
27 Cleanup sites. Evergreen Environmental Services in Davis, and Ramos Environmental Services in
28 Sacramento, were listed by DTSC as having an active Hazardous Waste Operating Permit. ExxonMobil
29 Oil Corporation, located east of College City in the unincorporated area of Yolo County, is a
30 nonoperating hazardous waste site with active cleanup status.

31 *Agricultural Hazardous Materials Issues*

32 Yolo County Agricultural Commissioner acts as the local enforcement for the California Department of
33 Pesticide Regulation. The Yolo County Agricultural Commissioner registers licensed pest control
34 businesses and agricultural pest control advisors in the county in which they operate, requires permits and
35 advanced notification for buying or using California restricted-use pesticides, and requires the completion
36 of pesticide use reports for pesticides applied in the county. The Yolo County Agricultural Commissioner
37 investigates pesticide-related injury and illnesses, and oversees the enforcement of worker training in
38 pesticide management.

39 *Aerially Deposited Lead*

40 Aerially deposited lead is a common hazardous material found in urban areas in soils adjacent to major
41 roadways. The lead deposition is the result of airborne particulates and surface water runoff associated
42 with tailpipe emissions prior to the time lead was phased out of vehicle fuel. California Department of
43 Transportation (Caltrans) studies suggest that hazardous waste levels of lead are generally found in soils
44 within 3 feet of the edge of pavement (DTSC 2009). Yolo County contains a number of heavily traveled

1 roadways, including Interstate 80 and State Route 113. Properties located adjacent to roadways may
2 contain elevated concentrations of lead in exposed surface soils, which could pose a health hazard to
3 construction workers and users of the properties.

4 14.4.2.3.2 Vectors

5 The SYMVCD provides mosquito and other vector control for Sacramento and Yolo counties. Refer to
6 Subsection 14.4.2.2.2 for a discussion of the SYMVCD. No human cases of WNV were reported in Yolo
7 County in 2010 (CDPH 2011c).

8 14.4.2.3.3 Fire Protection

9 The western third of Yolo County (west of Esparto and Winters) has been classified as having moderate
10 to very high wildfire risk, and the very high risk areas are concentrated in the northwest portion of the
11 county bordering Napa, Lake, and Colusa counties. Most of the remaining lands in Yolo County are
12 unzoned and represent minimal to moderate fire risk. Under State requirement, areas within very high
13 fire hazard risk zones must comply with specific building and vegetation requirements intended to reduce
14 property damage and loss of life. Within these areas, the Yolo County Planning and Public Works
15 Department is responsible for enforcing these provisions in unincorporated local response area risk areas
16 of Yolo County.

17 All incorporated areas and other unincorporated lands are classified as local response areas. Most of the
18 western third of Yolo County has been classified as State response areas managed by CAL FIRE, with
19 federally responsible agencies near the northwest and west county boundaries.

20 14.4.2.4 Solano County

21 14.4.2.4.1 Hazardous Materials

22 *Hazardous Waste*

23 Solano County Environmental Health Department conducts permitting and inspection of businesses that
24 handle quantities of hazardous materials or hazardous waste greater than or equal to 55 gallons,
25 50 pounds, or 200 cubic feet of a compressed gas at any time. About 1,200 businesses in Solano County
26 are regulated by this program. As part of the Hazardous Materials Business Plan, staff inspect businesses
27 for compliance with the Hazardous Waste Control Act and respond to complaints of illegal disposal of
28 hazardous waste. HMMPs address emergency response to incidents involving businesses handling
29 hazardous materials in excess of 55 gallons, 500 pounds, or 200 cubic feet of gas. Plans list inventories of
30 new or waste products that are toxic. Annual inventories of hazardous wastes are taken and reported as
31 part of the HMMP.

32 *Agricultural Spraying*

33 Numerous herbicides and pesticides are used in Solano County for weed control and pest control in
34 orchards, row crops, and vineyards. Of primary concern is spraying in areas adjacent to residential areas
35 and other sensitive receptors. State law prohibits aerial application of herbicides and pesticides within
36 300 feet of residential areas, and ground application is prohibited within 100 feet of residential areas. The
37 County Department of Agriculture regulates herbicide / pesticide use through its permit process, which
38 requires applicants to use only approved pesticides and herbicides, and specifies that sensitive receptors
39 be avoided. Solano County started a State-certified restricted permit process in 1980, which is equivalent
40 to California Environmental Quality Act's (CEQA) requirements, and is exempt from the site-specific
41 CEQA reporting. The County Department of Agriculture conducts onsite inspections that include
42 compliance with herbicide / pesticide drift restrictions, worker protection requirements, pesticide /
43 herbicide label instructions, and worker training.

1 *Pipeline Releases*

2 Nine reported pipeline releases of petroleum products occurred between 1981 and 2004 in Solano County.
3 Six of the sites were reported to have had successful remediation, and three of the sites continue to be
4 monitored and remediated. In 2004, a corroded Kinder Morgan Energy Partners pipeline burst in Suisun
5 Marsh. Kinder Morgan and the U.S. Coast Guard conducted initial cleanup actions, and USEPA
6 conducted further cleanup and marsh restoration activities. In 2004, 616 tons of contaminated soil were
7 removed, and no further cleanup actions were required.

8 *Underground Storage Tank Sites*

9 The Solano County Department of Resource Management is the Certified Unified Program Agency for all
10 cities and unincorporated areas in Solano County, and is responsible for a number of programs including
11 regulation of UST sites. Approximately 227 UST sites are located within Solano County.

12 *Brownfield Sites*

13 Brownfield sites are properties that are contaminated, or thought to be contaminated, and are underused
14 because of perceived remediation costs and liability concerns. The Solano County Department of
15 Resource Management is the Certified Unified Program Agency for all cities and unincorporated areas in
16 Solano County, and is responsible for a number of programs including regulation of brownfield sites. The
17 county Department of Resource Management maintains a list of about 500 brownfield sites within the
18 county and works with State and federal agencies to ensure cleanup of those sites.

19 *Transportation of Hazardous and Toxic Materials*

20 Several major interstate transportation routes pass through Solano County, and hazardous materials are
21 regularly transported through the area on these routes. Transport of materials also occurs by railway.
22 Records indicated that spillage and burning of spillage has drained into streams and drainage facilities
23 (roadside storm drains), spreading fire and increasing the area of contamination.

24 **14.4.2.4.2 Vectors**

25 The Solano County Mosquito Abatement District (SCMAD), located in Fairfield, manages the Suisun
26 Marsh primary marsh areas and secondary upland management areas to control the *Aedes* mosquitoes
27 being produced in Suisun Marsh and San Pablo Bay. The agency currently manages the primary marsh
28 areas and secondary upland management areas. Current mosquito abatement programs specifically related
29 to the Suisun Marsh include programs for duck clubs, permanent ponds used as waterfowl habitat, salt
30 marsh restoration of exterior levee lands, and tidal marshes (SCMAD 2011).

31 Duck club management includes water-control-structure management, vegetation management, mosquito
32 predator management, drainage improvements, and coordination with the California Department of Fish
33 and Game (DFG) regarding these strategies and specific techniques to help minimize mosquito
34 production on a pond-by-pond basis (SCMAD 2011).

35 Maintaining permanent ponds that increase the diversity of waterfowl in Suisun Marsh yet decrease the
36 introduction of vectors is a critical component of permanent pond management. Management activities
37 include constant circulation of water, vegetation control, and periodic draining of ponds (SCMAD 2011).

38 Salt marsh restoration of exterior levee lands management includes the restoration of former tidal marshes
39 to tidal action by removing or breaching existing levees. Tidal flooding alone does not create mosquito
40 problems; therefore, tidal management focuses on mosquito problems arising from the residual tidal and
41 floodwaters remaining in depressions and cracked ground (SCMAD 2011). The principal prevention
42 method in tidal marsh management consists of the construction of ditches to circulate tidal water into
43 sloughs and bays to avoid ponding. Management recommendations include effective drainage of ditches,
44 properly controlled drainage water control structures, spreader ditches constructed with adequate water

1 control mechanisms and maintained free and clear of debris and vegetation, and drainage structures
2 draining at designated times to control mosquito breeding (SCMAD 2011).

3 14.4.2.4.3 Fire Protection

4 The current areas with a very high-risk fire hazard for wildfires are in western Solano County in the
5 foothills and mountainous watershed areas. The Cordelia Hills, Potrero Hills, Cement Hills, and western
6 English Hills are all designated as high-risk fire areas (Solano County 2008). CAL FIRE manages
7 wildland fire areas in Solano County.

8 14.4.2.5 San Joaquin County

9 14.4.2.5.1 Hazardous Materials

10 *Hazardous Waste Generation*

11 The Department of Occupational Health and Safety (DOHS) estimates that about 33,270 tons of
12 hazardous waste per year are generated in San Joaquin County. Of this, about 17,780 tons are managed
13 onsite in treatment, storage, or disposal facilities. The remaining 15,490 tons are managed at hazardous
14 waste facilities.

15 *Hazardous Waste Disposal*

16 Waste management involves some form of treatment to render waste nontoxic or less toxic, or to
17 substantially reduce its volume. Onsite management usually involves discharge of diluted effluent to the
18 sewer system, solar evaporation in surface impoundments, chemical treatment, recycling, incineration,
19 and land disposal. Offsite management of hazardous wastes primarily consists of land disposal
20 techniques. Seven Class I disposal landfills are located in California; those closest to San Joaquin County
21 are located in Martinez and King City. Transportation of hazardous materials to these landfills occurs
22 through San Joaquin County.

23 *Hazardous Waste Facilities*

24 Two hazardous waste facilities are permitted, and two permits are under consideration for two more
25 facilities in San Joaquin County. McCormick and Baxter Creosoting Company operates a wood-
26 preserving facility that produces primarily waste liquids and sludge waste onsite. The Tracy Defense
27 Depot has been issued a storage container permit from DOHS. The site stores petroleum products,
28 solvents, process chemicals, and other chemicals that have passed their shelf life. These wastes are resold,
29 recycled, or transported to a Class I landfill for disposal. The Stockton Development Center and the Deuel
30 Vocational Institution are under study to receive permits.

31 *Hazardous Waste Properties*

32 Properties permitted to dispose of hazardous waste to land through treatment or storage in surface ponds,
33 waste piles, or land treatment are managed through DOHS. Five facilities are listed as potential hazardous
34 waste properties within the county.

35 *Hazardous Waste Sites*

36 The Health & Safety Code was amended by Assembly Bill 129 in 1985. The law requires DOHS to
37 develop a site-specific expenditure plan for appropriation from the Hazardous Substance Cleanup Bond
38 Act funds. The amendment consists of a new listing of site categories. The following seven Category 1
39 sites in San Joaquin County are being remediated by the responsible parties pursuant to and in
40 conformance with DOHS cleanup orders: Lika Corporation Field Avenue Annex; Lika Corporation Navy
41 Drive Facility; McCormick and Baxter; Acme Galvanizing; Arcady Oil/SP Pipeline; Kearney KPF; and
42 Lustre-California. Lague Sales is the only site in the county listed as a Category 2 site. One site, the
43 Marley Cooling Tower Company, listed separately on the National Priorities List, is located in
44 San Joaquin County. National Priorities List sites are also RCRA enforcement and closure sites and the

1 responsibility of USEPA. Federal facility cleanup sites in San Joaquin County are the Tracy Defense
2 Depot, the Naval Communications Center, Rough & Ready, and the Sharpe Army Depot. Noncategorized
3 sites include Brea Agricultural Services, Lodi Airport, Lodi Door and Metal Company, and Southern
4 Pacific Transportation Company in French Camp. Potential hazardous sites listed by the DOHS are
5 America Forest Products in Stockton, and Georgia Pacific in Tracy.

6 *Landfills*

7 No hazardous waste landfills occur in San Joaquin County, although illegal or mistaken hazardous waste
8 dumping has occurred at the Corral Hollow Landfill.

9 14.4.2.5.2 Vectors

10 Vector control is managed by the Stockton-based San Joaquin County Mosquito and Vector Control
11 District (SJC MVCD), which is an independent special district formed pursuant to Health & Safety Code
12 section 2000 et seq. The district manages tick and tick-borne disease control, biological control, physical
13 control, chemical control, legal abatement, and education and community outreach. Biological control
14 includes the use of mosquitofish to consume mosquito larvae and pupae that can survive in varying water
15 conditions. Because mosquitofish are surface feeders, they are extremely efficient mosquito predators.
16 Mosquitofish have been said to consume upwards of 80 to 100 mosquito larvae per day, and are capable
17 of quickly populating a source if conditions are favorable (SJC MVCD 2011). The fish are placed in a
18 variety of permanent and semipermanent freshwater habitats, including dirty swimming pools, water
19 troughs, rice fields, and wetlands.

20 Physical controls include prescribing specific management practices for treatment of wetlands. San
21 Joaquin County recommends the following criteria published in *Managing Mosquitoes in Surface-Flow*
22 *Constructed Treatment Wetlands* by the University of California (Walton 2003). The publication
23 prescribes specific design criteria for water depth and flow rates, grading and side and bottom slope, and
24 hydrological requirements. Management requirements include vegetation selection, plant harvesting and
25 removal, incorporation of plant-free zones, and biological control using fish and naturally occurring insect
26 predators enhanced by limiting the number of dense stands of emergent vegetation.

27 Chemical control includes larvicides that may be applied to water in which larvae or pupae are
28 developing. Pastures, septic tanks, irrigation ditches, animal waste ponds, creeks, sloughs, catch basins,
29 and roadside ditches are examples of areas the district regularly inspects to reduce mosquito populations.

30 The district has authority to require property owners to reduce or eliminate mosquito breeding when it
31 becomes a public nuisance, commonly known as legal abatement. The district also provides mosquito
32 prevention Best Management Practices (BMPs) for the reduction of mosquitoes in rice fields to 17 rice
33 farmers in the county and has provided “waste pond vegetation management recommendations to
34 301 agricultural and industrial waste pond owners and operators in the county (SJC MVCD 2011).

35 14.4.2.5.3 Fire Protection

36 Fire protection is mainly provided by rural fire districts in San Joaquin County or adjacent city fire
37 departments. More remote areas are under the jurisdiction of CAL FIRE.

38 **14.4.2.6 Contra Costa County**

39 14.4.2.6.1 Hazardous Materials

40 Hazardous materials in Contra Costa County consist of hazardous materials due to heavy industrial
41 development, oil and gas pipelines, oil and gas wells, and major vehicle and railroad transportation routes
42 transporting hazardous materials including explosives.

1 *Industrial Development*

2 Contra Costa County contains extensive heavy industrial development associated with hazardous material
3 uses along its western and northern coasts. Heavy industry is concentrated along the coasts and occurs in
4 lesser quantities in industrial parks in the county's interior. Many industrial uses are located on reclaimed
5 marshland underlain by soft, wet muds. Land uses involving hazardous materials in the county include
6 airports, Concord Naval Weapons Station, petroleum and chemical processing plants, oil and gas wells,
7 and petroleum product and natural gas pipelines.

8 *Pipelines*

9 Hundreds of miles of pipelines for the transportation of natural gas, crude oil, and refined petroleum cross
10 Contra Costa County, including residential and commercial areas.

11 *Oil and Gas Wells*

12 A number of oil and gas wells occur in Contra Costa County. Although these wells are generally far from
13 populated areas, there is a slight risk of them catching fire. Oil and Gas wells are discussed in Section 13,
14 Mineral Resources.

15 *Transportation*

16 Transportation of hazardous materials occurs throughout Contra Costa County, primarily on freeways and
17 major roads designated as explosive routes. The proximity of these roads to large numbers of people is of
18 concern in the event of an accident.

19 *Explosives*

20 The largest user of explosives in Contra Costa County is the U.S. Army's Military Traffic Management
21 Command (formerly Concord Naval Weapons Station). These explosives are regularly transported by
22 truck, train, or ship. Other explosives used for construction and quarrying occur in smaller amounts
23 throughout the county.

24 *Railroads*

25 The Burlington Northern-Santa Fe Railroad and Union Pacific Railroad both transport munitions for the
26 U.S. Army's Military Traffic Management Command.

27 14.4.2.6.2 Vectors

28 The Contra Costa Mosquito and Vector Control District (CCMVCD) manages vector control programs in
29 the county, including surveillance and control of the mosquito *C. tarsalis* in the county as well as on the
30 islands located in the Sacramento and San Joaquin rivers. Mosquito abatement activities include
31 residential programs for ponds and swimming pools, abatement management in agricultural fields,
32 mosquito abatement in surface-flow wetlands, integrated vector management, and mosquito abatement
33 management for the McNabney Marsh Restoration Project. Contra Costa Mosquito and Vector Control
34 District is the lead agency of this multi-agency restoration program; the goal of the project is to return
35 Peyton Slough to its original function of providing tidal exchange between the strait and the McNabney
36 Marsh.

37 14.4.2.6.3 Fire Protection

38 Fire hazards are considerable because of highly vegetated areas including wildlife habitats throughout the
39 county. Brush fires are high in late summer; they burn very hot and fast, and combined with winds, result
40 in destructive hot crown fires. Wildfire is a serious hazard in undeveloped areas with extensive areas of
41 non-irrigated vegetation. City autonomous fire districts and county-governed fire districts provide fire-
42 protection and suppression services throughout the county.

1 Peat fires are extremely difficult to extinguish once ignited. Peat is a type of soil that forms when partially
2 decomposed plant material builds up in a watery environment. As the organic matter becomes compacted
3 and decays, it generates oxygen, making it harder to extinguish once it is ignited. The only way to ensure
4 the fire is extinguished is to flood the affected area. Delta islands lying generally east of the near-high
5 water line are prone to peat fires. Some Delta islands such as Bethel Island have fire protection teams, and
6 others do not, including Bradford Island. Emergency crews typically respond by boat to the islands with
7 no fire protection teams.

8 **14.4.2.7 Alameda County**

9 **14.4.2.7.1 Hazardous Materials**

10 Hazardous materials in Alameda County are managed by the Alameda County Solid Waste Management
11 Authority, which cooperates with DOHS. Hazardous waste in the county consists of hazardous waste
12 transport through the county and transport of hazardous waste generated in the county to disposal sites
13 outside the county. A number of gas and oil pipelines are located in Contra Costa County, and onsite
14 storage and use of hazardous materials occurs in the county

15 *Hazardous Waste Disposal*

16 No Class I landfills are in Alameda County; hazardous wastes generated within the county are transported
17 to sites outside the county located in Benicia, Martinez, Kettleman, and Casmalia.

18 *Transport*

19 Caltrans regulates the transport of hazardous materials and is regulated by DOHS. All haulers are required
20 to register with these agencies, although neither agency regulates or designates hazardous materials
21 routes.

22 *Pipelines*

23 Alameda County Office of Emergency Services has developed an Alameda County Pipeline Plan that
24 designates all pipelines, owners, and shutoff valves. The owner of the pipeline is responsible if there is a
25 leak.

26 *Onsite Storage and Use*

27 All onsite storage and use of hazardous materials require a condition use permit by the county. Such uses
28 are only allowed in industrially zoned areas. Onsite or offsite storage, treatment, and disposal require a
29 permit DOHS.

30 **14.4.2.7.2 Vectors**

31 The Alameda County Mosquito Abatement District provides services for WNV, including larvicide
32 treatment and public outreach activities, such as acting as a resource for mosquito biology control and
33 prevention, insect identification, and associated disease transmission. Current abatement programs
34 include source reduction designed to detect, prioritize, and reduce primary mosquito sources in the county
35 through source reduction, application of larvicides, fish programs, mosquito monitoring, vector-borne
36 disease monitoring, employee and public safety, public education, and insect identification (Alameda
37 County Mosquito Abatement District 2011).

38 **14.4.2.7.3 Fire Protection**

39 The potential for destructive wildland fires is relatively high throughout the county's undeveloped hill
40 areas due to the rolling to rugged terrain, continuous flammable vegetation cover, and long and dry
41 summers with high wind conditions. Fire protection in Alameda County is provided by numerous public
42 and private agencies. Many provide structural and wildland fire-protection services. Generally, structural
43 fire protection is provided by fire departments in incorporated areas and by fire protection districts in

1 unincorporated urban areas. Wildland fire protection is provided by East Bay Regional Park District, the
2 County Fire Patrol, and CAL FIRE.

3 **14.4.3 Other Areas of California**

4 As described in Section 2A, Proposed Project and Alternatives, facilities could be constructed, modified,
5 or reoperated in the Delta watershed and areas outside of the Delta that use Delta water, in addition to the
6 Delta. Water use could also be modified in the areas outside of the Delta that use Delta water, in addition
7 to the Delta. Hazards and hazardous waste issues associated with the construction, operation and
8 maintenance of project features would be similar outside of the Delta to those described above for
9 conditions within the Delta. The construction and operation of any project outside of the Delta would be
10 regulated by the same federal and State hazards and hazardous materials regulations as for those projects
11 within the Delta.

12 **14.4.3.1 Hazardous Materials and Waste**

13 Many land uses in other areas of California outside the Delta are similar to those described above for the
14 Delta. Contamination and exposure is possible from agricultural, industrial, commercial, landfill
15 development, and military uses. Therefore the construction and operation of any project outside of the
16 Delta would be regulated by the same federal and State hazards and hazardous materials regulations as for
17 those projects within the Delta. County specific regulations would be in accordance with State and federal
18 regulations.

19 **14.4.3.2 Vectors**

20 Mosquito and mosquito borne disease conditions in other regions of California are similar to those
21 described above for the Delta. The construction and operation of any project outside of the Delta would
22 be regulated by the same federal and State vector control regulations as for those projects within the
23 Delta. County specific regulations would be in accordance with State and federal regulations.

24 **14.4.3.3 Fire Hazards**

25 Fire hazard conditions throughout central California are similar to those conditions described for the Delta
26 region in this document. Fire hazard conditions in southern California are generally more extreme than in
27 the Delta due to relatively low precipitation, topography, vegetation type, and climate including wind
28 patterns. In the same respect, fire hazard conditions in northern California are generally less extreme than
29 in the south, due to higher precipitation and lower temperatures. However, the construction and operation
30 of any project outside of the Delta would be regulated by the same federal and State fire hazard
31 regulations as for those projects within the Delta. County specific regulations would be in accordance
32 with State and federal regulations.

33 **14.5 Impacts Analysis of Project and** 34 **Alternatives**

35 **14.5.1 Assessment Methods**

36 The Proposed Project (Delta Plan) and alternatives would not directly result in construction or operation
37 of projects or facilities, and therefore would result in no direct hazards and hazardous materials impacts.

38 The Delta Plan alternatives could encourage the implementation of actions or activities by other agencies
39 to construct and operate facilities or infrastructure that are described in Sections 2A, Proposed Project and
40 Alternatives, and 2B, Introduction to Resource Sections. Examples of potential actions that could be

1 affected by local hazards include land use changes, conversion of agricultural lands, or land fallowing.
2 Projects may include water and wastewater treatment plants; conveyance facilities, including pumping
3 plants, pipelines, tunnels, and canals; surface water or groundwater storage facilities; ecosystem
4 restoration projects; flood control levees; or recreation facilities. Implementation of these actions and
5 construction and operation of these types of facilities could result in fire protection, vector control, and
6 hazardous materials impacts.

7 The precise magnitude and extent of project-specific hazards and hazardous materials-related impacts
8 would depend on the type of action or project being evaluated, its specific location, its total size, and a
9 variety of project- and site-specific factors that are undefined at the time of preparation of this program-
10 level study. Project-specific impacts due to hazards and hazardous materials would be addressed in
11 project-specific environmental studies conducted by the lead agency at the time the projects are proposed
12 for implementation.

13 Hazards and hazardous materials impacts from implementation of the Delta Plan alternatives were
14 evaluated in terms of how project components could temporarily or permanently introduce hazardous
15 materials to the project during construction and operation, and how project components could result in
16 permanent vector control and fire response-time impacts. Because project-level construction details are
17 not available for the project, components analyzed include impacts from hazards and hazardous materials
18 in the context of typical construction and operation projects in many areas of California.

19 This EIR proposes mitigation measures for impacts related to hazards and hazardous materials. The
20 ability of these measures to reduce these impacts to less-than-significant levels also depends upon project-
21 specific environmental studies; enforceability of these measures depends upon whether the project being
22 proposed is a covered action or not. This is discussed in more detail in Section 14.5.3.6 and in Section 2B,
23 Introduction to Resource Sections.

24 14.5.2 Thresholds of Significance

25 Based on Appendix G of the State CEQA Guidelines and the particular circumstances of this project, an
26 impact related to hazards and hazardous materials is considered significant if the Proposed Project would
27 do any of the following:

- 28 " Create a significant hazard to the public or the environment through the routine transport, use, or
29 disposal of hazardous materials or through reasonably foreseeable upset and accident conditions
30 involving the release of hazardous materials into the environment
- 31 " Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or
32 waste within 0.25 mile of an existing or proposed school
- 33 " Be located on a site which is included on a list of hazardous materials sites compiled pursuant to
34 Government Code, Section 65962.5, and, as a result, would create a significant hazard to the
35 public or the environment
- 36 " For a project located within an airport land use plan or, where such a plan has not been adopted,
37 within 2 miles of a public airport or public use airport, would the project result in a safety hazard
38 for people residing or working in the project area
- 39 " Expose people or structures to a significant risk of loss, injury or death involving wildland fires,
- 40 " Create vector habitat that would pose a significant public health hazard.

41 Impacts during the construction period are considered temporary and short term. These impacts would
42 include the temporary transport use and disposal of hazardous materials and waste associated with
43 construction. Such impacts would cease when construction was completed. Project impacts such as those

1 from routine use and disposal of hazardous materials and waste for system operation and maintenance, are
2 considered permanent because these activities and impacts would continue for the duration of the project
3 operation.

4 The following discussion of environmental impacts is limited to those potential impacts that could result
5 from actions or projects the Delta Plan alternatives could encourage. As individual activities are proposed
6 by other agencies, these individual activities will need to be evaluated in site-specific environmental
7 documents prepared by those agencies.

8 **14.5.3 Proposed Project**

9 **14.5.3.1 Reliable Water Supply**

10 As described in Sections 2A, Proposed Project and Alternatives, and 2B, Introduction to Resource
11 Sections, the Delta Plan does not direct the construction of specific projects, nor would projects be
12 implemented under the direct authority of the Council. However, the Delta Plan seeks to improve water
13 supply reliability by encouraging various actions that, if taken, could lead to completion, construction,
14 and/or operation of projects that could provide a more reliable water supply. Such projects and their
15 features could include the following:

- 16 " Surface water projects (water intakes, treatment and conveyance facilities, reservoirs,
17 hydroelectric facilities)
- 18 " Groundwater projects (wells, wellhead treatment, conveyance facilities)
- 19 " Ocean desalination projects (water intakes, brine outfalls, treatment and conveyance facilities)
- 20 " Recycled wastewater and stormwater projects (treatment and conveyance facilities)
- 21 " Water transfers
- 22 " Water use efficiency and conservation program implementation

23 The number and location of all potential projects that would be implemented is not known at this time.
24 However, the Proposed Project specifically names the California Department of Water Resources (DWR)
25 Surface Water Storage Investigation, which includes the North-of-the-Delta Offstream Storage
26 Investigation (aka Sites Reservoir), Los Vaqueros Reservoir Project (Phase 2), and the Upper San Joaquin
27 River Basin Storage Investigation Plan (aka Temperance Flat Reservoir). It also encourages the update of
28 Bulletin 118, DWR's statewide groundwater report that could lead to improvements in groundwater
29 management and development of related facilities. Bulletin 118 presents a list of 10 recommendations for
30 the management of groundwater but does not result in construction or operation of a specific project
31 which could generate hazards or hazardous materials impacts; therefore, Bulletin 118 is not evaluated in
32 this section.

33 **14.5.3.1.1 Impact 14-1a: Create a Significant Hazard to the Public or the Environment Through the** 34 **Routine Transport, Use, or Disposal of Hazardous Materials or Through Reasonably** 35 **Foreseeable Upset and Accident Conditions Involving the Release of Hazardous** 36 **Materials into the Environment**

37 During construction of projects encouraged by the Delta Plan (Section 14.5.3.1), relatively small
38 quantities of hazardous materials probably would be onsite, including limited quantities of gasoline,
39 diesel fuel, motor oil, hydraulic fluid, solvents, cleaners, sealants, welding flux, various lubricants, paint,
40 and paint thinner. The types of paint required are dictated by the types of equipment and structures that
41 must be coated and by the service conditions and environment. Most heavy equipment requires petroleum
42 products such as fuel, hydraulic fluids, and lubricants for effective operation. Fuel replenishment would

1 be required daily for most of the heavy equipment. Lubricant and hydraulic fluid changes and
2 replenishments would be required periodically. Typically, service trucks would deliver these types of
3 fluids onsite and perform the necessary fuel and oil transfers. A risk of small fuel or oil spills is
4 considered likely, but would have a negligible impact on public health. All hazardous materials would
5 likely be stored, handled, and disposed of according to manufacturers' recommendations, and any spills
6 would be cleaned up in accordance with existing regulations. Additionally, a Stormwater Pollution and
7 Prevention Plan (SWPPP) would be prepared for construction sites over 1 acre in size. The SWPPP would
8 incorporate BMPs for the transport, storage, use, and disposal of hazardous materials to prevent the
9 release of hazardous materials into the environment.

10 Construction-related activities also could involve excavation activities. Ground-disturbing activities of
11 project construction could disturb areas with soil or groundwater contamination or encounter an
12 unrecorded hazardous material site. Adverse impacts could result if construction activities inadvertently
13 dispersed contaminated material into the environment, such as the release of airborne materials during
14 demolition, which could adversely affect construction workers, others in the vicinity of the construction
15 activity, or nearby wildlife or habitat.

16 Construction activities could also involve deliveries and handling of hazardous materials or demolition of
17 existing structures that could generate hazardous waste.

18 The Seawater Desalination Project at Huntington Beach provides an example of the types of potential
19 impacts associated with ocean desalination projects. The Subsequent EIR for the project (City of
20 Huntington Beach 2010), indicated that the project would involve the storage, handling, use, and transport
21 of hazardous materials used in the desalination process, which includes periodic cleaning of the reverse
22 osmosis membranes that filter impurities from seawater; treatment of potable product water; and storage
23 of diesel fuel for emergency backup electricity generators at the offsite underground pump stations. The
24 project also would include demolition of old fuel storage tanks and the remediation of any soil/
25 groundwater impacted by contamination associated with previous usage as a fuel storage facility.
26 Exposure could result if materials were air-borne, (e.g., gases) or could occur through ignition of
27 flammable liquids or vapors, inhalation of toxic vapors in confined spaces, and skin contact with
28 contaminated soil or water. Construction of this and similar projects also could expose sensitive receptors
29 in the vicinity of the construction and haul corridors to the potential of accidental hazardous materials
30 spills and releases. The EIR found no significant impacts related to hazards and hazardous materials and
31 concluded that mitigation was not necessary, except for implementation of existing regulations and
32 requirements.

33 Operation and maintenance of facilities or project features could result in localized spills and could also
34 create environmental hazards similar to those listed above for construction activities over the long term.
35 The potential for hazard-related impacts (e.g., spills) would continue during operation for those facilities
36 that require the use of hazardous materials (e.g., chlorine) as part of ongoing operations.

37 The Delta Plan encourages implementation of the following surface water storage projects: North of Delta
38 Offstream Storage Investigation, Los Vaqueros Reservoir Project (Phase 2), and the Upper San Joaquin
39 River Basin Storage Investigation Plan. Of these, the Los Vaqueros Reservoir Expansion Project has
40 undergone project-specific environmental review via an Environmental Impact Statement (EIS)/ EIR; the
41 other two projects have not. The Los Vaqueros EIS/EIR (Reclamation et al. 2009) was reviewed as an
42 example of the types of impacts that could arise from a surface storage project. In addition, the project-
43 specific EIR for another surface storage project (not named in the Delta Plan) – the Calaveras Dam
44 Replacement Project (SFPUC 2011) – also was reviewed.

45 The Los Vaqueros Reservoir Expansion EIS/EIR (Reclamation et al. 2009) evaluated three alternatives to
46 increase water storage, a new Delta intake structure, and conveyance facilities. The lead agency found
47 that that exposure to hazards or hazardous waste associated with facility construction and operation were

1 either less than significant or less than significant with mitigation due to implementation of BMPs to keep
2 materials from hazardous release, preparing a hazardous release spill prevention, control, and
3 countermeasure plan and to inspect the site on a regular basis .

4 In the EIR for the Calaveras Dam Replacement Project (SFPUC 2011), the lead agency found that that
5 exposure to hazards or hazardous waste associated with facility construction and operation were either
6 less than significant or less than significant with mitigation. Mitigation measures included notification to
7 the SFPUC of planned excavation activities within the former Calaveras Test site, compliance with the
8 RWQCB regarding excavation and groundwater plumes, developing a site contingency plan in the case of
9 hazardous release and preparation of a Dust Mitigation Plan to alleviate airborne hazards.

10 Construction and operation of the other types of water supply reliability projects listed in Section 14.5.3.1
11 generally would have similar impacts with respect to hazards and hazardous materials. The following
12 projects, which are not named in the Delta Plan, are illustrative of the types of impacts associated with
13 construction of water supply reliability projects: the Davis-Woodland Water Supply Project (City of
14 Davis et al. 2007), which includes a water intake in the Sacramento River, pumping plants, and
15 conveyance and water treatment facilities; the Lower Yuba River Accord (DWR et al. 2007), which
16 addresses water management, including water transfers; and the Carlsbad Precise Development Plan and
17 Desalination Plant Project (City of Carlsbad 2005), which illustrates some of the likely impacts of
18 seawater desalination plants. The environmental analyses conducted for all of these projects found that
19 that exposure to hazards or hazardous waste associated with facility construction and operation were
20 either less than significant or less than significant with mitigation. Mitigation included construction
21 monitoring in areas with the potential for hazardous materials to be uncovered during pipeline trenching,
22 compliance with all applicable federal, State, and local codes and regulations regarding use and transport
23 of hazardous materials, and implementation of safety programs.

24 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
25 time such projects are proposed by lead agencies. Most of the risk related to any given project would
26 likely occur during construction, and would therefore be temporary and limited. However, because water
27 supply reliability actions or projects encouraged by the Proposed Project might create a significant hazard
28 to the public or the environment through the routine transport, use, or disposal of hazardous materials or
29 reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the
30 environment, this potential impact is considered **significant**.

31 14.5.3.1.2 Impact 14-2a: Be Located on a Site Which Is Included on a List of Hazardous Materials 32 Sites Compiled Pursuant to Government Code, Section 65962.5 and, as a Result, Would 33 Create a Significant Hazard to the Public or the Environment

34 The DTSC Hazardous Waste and Substances Sites (Cortese) List is a reporting document used by the
35 State, local agencies, and developers to comply with CEQA requirements in providing information about
36 the location of hazardous materials release sites. The information is site-specific, and used for evaluation
37 of project-level environmental impacts. For this program-level EIR, the site-specific information is not
38 useful because the specific location of projects and the activities that could disturb known hazardous
39 waste and substances sites are not known.

40 The EIS/EIR for the Los Vaqueros Reservoir Expansion EIS/EIR (Reclamation et al. 2009), which is
41 named in the Delta Plan and provides an example of the type of surface water storage facility encouraged
42 by the Proposed Project, considered the risks of exposure to contaminants on project sites., The lead
43 agency found that that exposure to hazards or hazardous waste associated with facility construction and
44 operation were either less than significant or less than significant with mitigation. In the EIR for the
45 Calaveras Dam Replacement Project (SFPUC 2011), the lead agency found that that exposure to hazards
46 or hazardous waste associated with facility construction and operation were either less than significant or
47 less than significant with mitigation. Mitigation measures included notification to the San Francisco

1 Public Utilities Commission (SFPUC) of planned excavation activities within the former Calaveras Test
2 site, compliance with the RWQCB regarding excavation and groundwater plumes, developing a site
3 contingency plan in the case of hazardous release and preparation of a Dust Mitigation Plan to alleviate
4 airborne hazards. Project-level impacts would be addressed in future site-specific environmental analysis
5 conducted at the time such projects are proposed by lead agencies, and these projects would be required to
6 consult the list and address impacts associated with these sites located in the construction area. However,
7 because water supply reliability actions or projects encouraged by the Proposed Project could occur
8 within areas identified on the list, this potential impact is considered **significant**.

9 14.5.3.1.3 Impact 14-3a: Create Vector Habitat That Would Pose a Significant Public Health Hazard

10 Construction and operations of the types of projects identified in Section 14.5.3.1 could result in new
11 areas of standing water. Mosquitoes require standing water to complete their growth cycles, and any body
12 of standing water that remains undisturbed for multiple days represents a potential mosquito breeding site.
13 Construction sites typically use BMPs to control stormwater leaving a site. Standing water could remain
14 onsite after storm events until it evaporates; potentially remaining onsite for multiple days. Stagnant water
15 areas could be created in these areas, creating potential mosquito habitat. Operation and maintenance of
16 facilities or project features could result in areas of pooled standing water and could also create
17 environmental hazards similar to those listed above.

18 Two projects with completed environmental documentation, the Los Vaqueros Project and the Calaveras
19 Dam Replacement Project, were reviewed for information regarding vector-related impacts associated
20 with surface water storage projects. Neither of the environmental documents (Reclamation et al. 2009 and
21 SFPUC 2011) for these projects specifically analyzed potential impacts from disease vectors. The EIR for
22 a third project, the Davis-Woodland Water Supply Project also was reviewed (City of Davis et al. 2007).
23 The EIR also did not specifically address vectors.

24 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
25 time such projects are proposed by lead agencies. However, there is no substantial evidence that this
26 impact would be significant. This conclusion is based on the review of environmental analyses of similar
27 projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably
28 plausible scenario in which a potential significant impact would occur. It is therefore concluded that this
29 impact would likely be **less than significant**. Future project-specific analyses may develop adequate
30 information to arrive at a different conclusion; however, for purposes of this program-level analysis, there
31 is no available information to indicate that another finding is warranted or supported by substantial
32 evidence.

33 14.5.3.1.4 Impact 14-4a: Emit Hazardous Emissions or Handle Hazardous or Acutely Hazardous 34 Materials, Substances, or Waste Within 0.25 Mile of an Existing or Proposed School

35 As described above in Section 14.5.3.1.1, relatively small quantities of hazardous materials probably
36 would be onsite during construction and operation of projects encouraged by the Delta Plan. Construction
37 activities could involve deliveries and handling of hazardous materials or demolition of existing structures
38 to build new structures that could generate hazardous waste. Project sites could be within 0.25 mile of an
39 existing or proposed school. A release of hazardous material, potentially exposing school occupants,
40 could result if materials were to become air-borne, (e.g., gases or asbestos particles) or could occur
41 through ignition of flammable liquids or vapors. Construction of these projects also could expose schools
42 within 0.25 mile of the construction and haul corridors to the potential of accidental hazardous materials
43 spills. Operation and maintenance of facilities or project features within 0.25 mile of schools could result
44 in localized spills and potential releases similar to those listed above.

45 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
46 time such projects are proposed by lead agencies. The specific location, number, capacity, and methods
47 and duration of construction activities associated with implementation of the Proposed Project is not

1 currently known, and it is possible that water supply reliability actions or activities could take place
2 within 0.25 mile of an existing or proposed school. Therefore, this impact is considered **significant**.

3 14.5.3.1.5 Impact 14-5a: Increase Safety Hazards for People Residing in or Working in the Project 4 Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or Within 5 2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards

6 Water supply reliability actions or projects encouraged by the Proposed Project could be constructed
7 anywhere in the Project Area, including within the vicinity of airports. Projects that are constructed near
8 airports could have the potential to create a safety hazard for people by placing them in proximity to the
9 hazards associated with airport operations. The construction of water supply projects near airports also
10 could produce light, glare, or other distractions that interfere with airport operations. While the location of
11 water supply projects that could be encouraged by the Proposed Project is not currently known, it is
12 possible that some projects could be constructed within 2 miles of a public airport. Projects constructed in
13 these areas likely would be subject to the consistency requirements of an Airport Land Use Plan.
14 Therefore, it is unlikely that new construction in proximity to airports would result in significant impacts
15 that could not be mitigated.

16 In addition to subjecting people to airport hazards, the construction of water supply projects could
17 adversely affect airport safety by increasing the potential for collisions between aircraft and wildlife. For
18 example, projects with features that contain open water could attract wildlife, specifically birds, and
19 increase the potential for bird strikes. Open water and agricultural crops (with standing water such as rice
20 fields and wetlands) are recognized as being the greatest wildlife attractants in the vicinity of airports
21 (Federal Aviation Administration 2007). Wildlife attractants near runways are of greatest concern because
22 nationally, 74 percent of bird strikes occur at or below 500 feet above ground level (Cleary et al. 2004).

23 Water supply projects, such as surface water storage reservoirs and conveyance channels, could attract
24 birds (particularly waterfowl) that present risks to aircraft. Even areas outside of Airport Operations Areas
25 that attract birds could present a risk if they alter or establish migratory or local movement patterns that
26 place birds in the airport flight path.

27 While water supply projects would not likely increase safety hazards for people, the large and small
28 surface storage facilities could attract wildlife that could pose a safety hazard for aircraft. Project-level
29 impacts would be addressed in future site-specific environmental analysis conducted at the time such
30 projects are proposed by lead agencies. However, because of the potential for some water supply projects
31 to attract wildlife that could pose an airport safety hazard, the potential impacts are considered
32 **significant**.

33 14.5.3.1.6 14-6a: Expose People or Structures to a Significant Risk of Loss, Injury, or Death 34 Involving Wildland Fires

35 In addition to hazardous materials, wildfires could pose a hazard for people or property in many areas of
36 California. Wildland fires are a particularly dangerous threat to development located in forest and shrub
37 lands. The severity of wildland fires is primarily influenced by vegetation, topography, and weather. CAL
38 FIRE has developed a fire severity scale that considers vegetation, climate, and slope to evaluate the level
39 of wildfire hazard in all areas where CAL FIRE has primary responsibility for providing fire protection
40 assistance. CAL FIRE designates three levels of Fire Hazard Severity Zones (Moderate, High, and Very
41 High) to indicate the severity of fire hazard in particular geographic areas. Areas of High and Very High
42 hazard severity are typically located in vegetated areas in hilly or mountainous terrain.

43 Areas within the Delta generally are not subject to severe fire danger; however, water supply projects
44 could be constructed in higher risk areas within the Delta watershed or areas that use Delta water; this
45 would particularly true for facilities constructed in fire-prone areas in Coast Ranges, Sierra Nevada, and
46 southern California. Because the specific location of water supply projects, particularly those outside the

1 Delta, are not known, the potential for exposing people or structures to a significant risk of loss, injury, or
2 death as a result of wildland fires is uncertain. Therefore, this impact is considered **significant**.

3 **14.5.3.2 Delta Ecosystem Restoration**

4 As described in Sections 2A, Proposed Project and Alternatives, and 2B, Introduction to Resource
5 Sections, the Delta Plan does not direct the construction of specific projects, nor would projects be
6 implemented under the direct authority of the Council. However, the Delta Plan seeks to improve the
7 Delta ecosystem by encouraging various actions and projects that, if taken, could lead to completion,
8 construction, and/or operation of projects that could improve the Delta ecosystem. Features of such
9 projects and actions that could be implemented as part of efforts to restore the Delta ecosystem include
10 the following:

- 11 " Floodplain restoration
- 12 " Riparian restoration
- 13 " Tidal marsh restoration
- 14 " Stressor management
- 15 " Invasive species management (including removal of invasive vegetation)

16 The number and location of all potential projects that could be implemented is not known at this time.
17 Five projects or project locations, however, are known to various degrees and are named in the Delta
18 Plan. These are:

- 19 " Cache Slough Complex (includes Prospect Island Restoration Project)
- 20 " Cosumnes River-Mokelumne River Confluence: North Delta Flood Control and Ecosystem
21 Restoration Project
- 22 " Lower San Joaquin River Bypass Proposal
- 23 " Suisun Marsh Habitat Management, Preservation, and Restoration Plan (includes Hill Slough
24 Restoration Project)
- 25 " Yolo Bypass

26 Of these five, the Suisun Marsh project has undergone project-specific environmental review (Suisun
27 Marsh Habitat Management, Preservation, and Restoration Plan Draft EIS/EIR (Reclamation 2010).

28 Construction and operation of these projects and implementation of the DFG's Stage Two Actions for
29 Nonnative Invasive Species could increase exposure to hazards and hazardous materials as described
30 below.

31 **14.5.3.2.1 Impact 14-1b: Create a Significant Hazard to the Public or the Environment through the** 32 **Routine Transport, Use, or Disposal of Hazardous Materials or Through Reasonably** 33 **Foreseeable Upset and Accident Conditions Involving the Release of Hazardous** 34 **Materials into the Environment**

35 The use of lubricants, fuels, and other hazardous materials during construction, operations, and
36 maintenance of ecosystem restoration projects encouraged by the Proposed Project would be similar to
37 the use described above for water supply reliability actions in Section 14.5.3.1.1. Relatively small
38 quantities of hazardous materials probably would be stored onsite. Typically, service trucks would deliver
39 fuel and other materials onsite and perform the necessary fuel and oil transfers. A risk of small fuel or oil
40 spills is considered likely, but would have a negligible impact on public health. All hazardous materials
41 would likely be stored, handled, and disposed of according to manufacturers' recommendations, and any
42 spills would be cleaned up in accordance with existing regulations. Additionally, an SWPPP would be
43 prepared for construction sites over 1 acre in size. The SWPPP would incorporate BMPs for the transport,

1 storage, use, and disposal of hazardous materials to prevent the release of hazardous materials into the
2 environment.

3 Construction-related activities for ecosystem restoration projects also could involve excavation activities.
4 Ground disturbing activities of project construction could disturb areas with soil or groundwater
5 contamination or encounter an unrecorded hazardous material site. Adverse impacts could result from
6 construction activities that inadvertently disperse contaminated material into the environment.

7 It is not known at this time exactly what types of or where specific restoration projects that could result in
8 localized spills or exposure of humans to hazardous materials would occur. However, the completed
9 environmental documentation for two named projects encouraged by the Delta Plan, the Suisun Marsh
10 Habitat Management, Preservation, and Restoration Plan and the North Delta Flood Control and
11 Ecosystem Restoration Project, provide insight into the types of hazard-related impacts that could occur.

12 The Suisun Marsh Management, Preservation, and Restoration Plan EIS/EIR (Reclamation 2010)
13 evaluated a project that would restore marsh habitat and create managed wetlands in Suisun Marsh. The
14 lead agency found that all but one impact from construction and operation would be less than significant
15 and required no mitigation for construction. The impact of the increase of human exposure to petroleum
16 and natural gas was determined to be less than significant with mitigation measures in place during
17 operation including avoiding ground disturbance activities within pipeline right-of-way, relocating or
18 upgrading utility facilities that could be damaged by inundation, testing, repairing, and replacing pipelines
19 that have the potential for failure.

20 The North Delta Flood Control and Ecosystem Restoration Project involved more construction activities
21 than the Suisun Marsh Management, Preservation, and Restoration Plan. In the final EIR for this project
22 (DWR 2010), DWR found that construction and operations impacts resulting from the release of
23 hazardous materials would be less than significant with the application of mitigation measures that
24 contain and properly dispose of lead paint and contaminated materials, design and operate the project to
25 minimize mosquito breeding habitat, and design and operate dredged material drying areas to minimize
26 mosquito breeding habitat.

27 In addition to habitat restoration projects, the control of invasive vegetation could include the application
28 of herbicides. These materials, applied according to label restrictions, would not be expected to present a
29 hazard. However, the transport of herbicides for this purpose and use of application equipment could
30 increase the potential for spills of these materials.

31 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
32 time such projects are proposed by lead agencies. Most of the risk associated with any given project
33 would likely occur during construction, and would therefore be temporary and limited. However, because
34 ecosystem restoration actions or projects encouraged by the Proposed Project may create a significant
35 hazard to the public or the environment through the routine transport, use, or disposal of hazardous
36 materials or reasonably foreseeable upset and accident conditions involving the release of hazardous
37 materials into the environment, this potential impact is considered **significant**.

38 14.5.3.2.2 Impact 14-2b: Be Located on a Site Which Is Included on a List of Hazardous Materials 39 Sites Compiled Pursuant to Government Code, Section 65962.5 and, as a Result, Would 40 Create a Significant Hazard to the Public or the Environment

41 Ecosystem restoration projects encouraged by the Proposed Project could occur in areas where hazardous
42 waste and substances sites identified on the Cortese List are located, and construction activities could
43 result significant hazards to the public or the environment if these areas sites are encountered. The Suisun
44 Marsh Management, Preservation, and Restoration Plan EIS/EIR (Reclamation 2010) evaluated three
45 alternatives to restore marsh habitat and create managed wetlands in Suisun Marsh and considered the
46 risk of accidental exposure resulting from contaminated sites. The lead agency found that all but one

1 impact from construction and operation would be less than significant and required no mitigation for
2 construction. The one impact of the increase of human exposure to petroleum and natural gas would be
3 less than significant with mitigation measures in place during operation including avoiding ground
4 disturbance activities within pipeline right-of-way, relocating or upgrading utility facilities that could be
5 damaged by inundation, testing, repairing, and replacing pipelines that have the potential for failure. The
6 lead agency found impacts due to exposure to or release of hazardous materials during construction would
7 be less than significant and required no mitigation. Project-level impacts would be addressed in future
8 site-specific environmental analysis conducted at the time such projects are proposed by lead agencies. At
9 that time, project proponents would be required to consult the list and address impacts associated
10 construction activities within or adjacent to these sites. However, because of the uncertainty regarding the
11 specific location of ecosystem restoration projects and actions encouraged by the Proposed Project and
12 the potential for these to be conducted in areas could occur within areas identified on the list, this
13 potential impact is considered **significant**.

14 14.5.3.2.3 Impact 14-3b: Create Vector Habitat That Would Pose a Significant Public Health Hazard

15 Construction and operations of the types of ecosystem restoration projects could result in new areas of
16 standing water. Mosquitoes require standing water to complete their growth cycles, and any body of
17 standing water that remains undisturbed for multiple days could represent a potential mosquito breeding
18 site. Construction sites typically use BMPs to control stormwater from leaving a site. Standing water
19 could remain onsite after storm events until it evaporates; potentially remaining onsite for multiple days.
20 Stagnant water areas could be created in these areas, creating potential mosquito habitat. Operation of
21 restoration areas could include management activities that would continue to provide water movement
22 within the restoration areas. Vegetation management is a typical maintenance activity implemented in
23 restoration projects due to the overgrowth of vegetative species that have the effect of slowing water flow
24 within the restoration area, enabling mosquitoes to breed. In the event that maintenance activities would
25 be delayed, the potential for standing water would be increased.

26 The Suisun Marsh Management, Preservation, and Restoration Plan EIS/EIR (Reclamation 2010)
27 evaluated three alternatives to restore marsh habitat and create managed wetlands in Suisun Marsh. The
28 lead agency found that impacts due to an increased risk of mosquito-borne diseases would be less than
29 significant and required no mitigation because the project design would minimize mosquito breeding
30 habitat.

31 The North Delta Flood Control and Ecosystem Restoration Project (DWR 2010) involves more
32 construction activities than the Suisun Marsh Management, Preservation, and Restoration Plan. In the EIR
33 for this project, DWR found that any impact associated with an exposure of people to mosquitoes would
34 be less than significant with the incorporation of operational mitigation measures that included project
35 design to decrease potential mosquito breeding habitat.

36 Ecosystem restoration actions or projects encouraged by the Proposed Project could be constructed
37 anywhere in the Delta. It is not known at this time exactly what types or where construction of specific
38 restoration projects would occur. Project-level impacts would be addressed in future site-specific
39 environmental analysis conducted at the time such projects are proposed by lead agencies. However,
40 because of the potential for ecosystem restoration actions encouraged by the Proposed Project to create
41 vector habitat that would pose a significant public health hazard, this potential impact is considered
42 **significant**.

43 14.5.3.2.4 Impact 14-4b: Increased Safety Hazards Due to Emissions or Handling of Hazardous 44 Materials, Substances, or Waste Within 0.25 Mile of an Existing or Proposed School

45 As described in Section 14.5.3.2.1, relatively small quantities of hazardous materials probably would be
46 used at construction sites of ecosystem restoration projects encouraged by the Delta Plan
47 (Section 14.5.3.2). Construction activities could involve deliveries and handling of hazardous materials.

1 Construction of these projects also could expose sensitive receptors in the vicinity of the construction and
2 haul corridors to the potential of accidental hazardous materials spills. Construction sites could be within
3 0.25 mile of an existing or proposed school. Release, potentially exposing school occupants, could result
4 if materials became air-borne, (e.g., gases or asbestos particles) or could occur through ignition of
5 flammable liquids or vapors. Construction of these projects also could expose schools within 0.25 mile of
6 the construction and haul corridors to the potential of accidental hazardous materials spills. Operation and
7 maintenance of facilities or project features within 0.25 mile of schools could result in localized spills and
8 potential releases similar to those listed above.

9 Ecosystem restoration actions or projects encouraged by the Proposed Project could be constructed
10 anywhere in the Delta. It is not known at this time exactly what types or where construction of specific
11 restoration projects would occur. Project-level impacts would be addressed in future site-specific
12 environmental analysis conducted at the time such projects are proposed by lead agencies. However,
13 because of the potential for ecosystem restoration actions encouraged by the Proposed Project to create
14 safety hazards due to hazardous substances near schools, this potential impact is considered **significant**.

15 **14.5.3.2.5 Impact 14-5b: Increase Safety Hazards for People Residing in or Working in the Project**
16 **Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or Within**
17 **2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards**

18 Ecosystem restoration actions or projects encouraged by the Proposed Project would be constructed in
19 and near the Delta, and could be located in the vicinity of airports. Projects that are constructed near
20 airports could have the potential to create a safety hazard for people by placing them in proximity to the
21 hazards associated with airport operations. Construction at night could produce light, glare, or other
22 distractions that interfere with airport operations. Projects constructed in these areas likely would be
23 subject to the consistency requirements of an Airport Land Use Plan. Therefore, it is unlikely that new
24 construction in proximity to airports would result in significant impacts that could not be mitigated.

25 Projects that are constructed near airports and contain features that contain open water that would likely
26 attract wildlife, specifically birds, would increase the potential for bird colliding with aircraft. By design,
27 ecosystem restoration projects are attractive to wildlife. The open water associated with these sites could
28 attract waterfowl and other birds that could pose a risk to aircraft safety. Riparian restoration also could
29 increase the risk by providing perching and nesting opportunities for raptors and other large birds.

30 As an example of the potential impacts posed by restoration actions, the EIR for the Natomas Levee
31 Improvement Program, Phase 3 Landside Improvements Project (SAFCA 2009) presented an analysis of
32 the impacts associated with construction of a canal intended to support giant garter snake movement. The
33 lead agency concluded that the open water channel would increase the potential for bird use, but that the
34 impact would be offset by other features of the project that would reduce the risk, such as the removal of
35 groves of trees that support bird use and the seasonal dewatering of drainage ditches adjacent to the
36 airport. The impact was determined to be less than significant.

37 Ecosystem restoration actions or projects encouraged by the Proposed Project would be constructed in
38 and near the Delta. It is unclear at this time how implementation of the Proposed Project would result in
39 specific construction activities, including the location, number, capacity, and methods and duration of
40 construction activities. It is possible, however, that Delta ecosystem restoration actions or activities could
41 take place within the vicinity of an airport. Therefore, this impact is considered **significant**.

1 **14.5.3.2.6 14-6b: Expose People or Structures to a Significant Risk of Loss, Injury, or Death**
2 **Involving Wildland Fires**

3 Ecosystem restoration projects would not be expected to expose people or structures to significant loss,
4 injury, or death involving wildland fires because of the low likelihood of severe wildfires in the Delta.
5 In addition, ecosystem restoration projects, including tidal marsh and floodplain generally would not
6 include structures or increased human use.

7 The EIRs for the Suisun Marsh Management, Preservation, and Restoration Plan (Reclamation 2010) and
8 the North Delta Flood Control and Ecosystem Restoration Project (DWR 2010) were reviewed to gain
9 additional insight into the potential for ecosystem restoration to expose people or structures to wildfire
10 risk. Neither of these project EIRs addressed wildland fire as a risk.

11 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
12 time such projects are proposed by lead agencies. However, there is no substantial evidence that this
13 impact would be significant. This conclusion is based on the review of environmental analyses of similar
14 projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably
15 plausible scenario in which a potential significant impact would occur. It is therefore concluded that this
16 impact would likely be **less than significant**. Future project-specific analyses may develop adequate
17 information to arrive at a different conclusion; however, for purposes of this program-level analysis, there
18 is no available information to indicate that another finding is warranted or supported by substantial
19 evidence.

20 **14.5.3.3 Water Quality Improvement**

21 The Delta Plan does not direct the construction of specific projects, nor would projects be implemented
22 under the direct authority of the Council. However, the Delta Plan seeks to improve water quality by
23 encouraging various actions and projects that, if taken, could lead to completion, construction, and/or
24 operation of projects that could improve water quality.

25 Features of such actions and projects that could be implemented as part of efforts to improve water
26 quality include the following:

- 27 " Water treatment plants
- 28 " Conveyance facilities (pipelines, pumping plants)
- 29 " Wastewater treatment and recycle facilities
- 30 " Municipal stormwater treatment facilities
- 31 " Agricultural runoff treatment (eliminate, capture, and treat/reuse)
- 32 " Wellhead treatment facilities
- 33 " Wells (withdrawal, recharge, and monitoring)

34 The number and location of all potential actions and projects that could be implemented are not known at
35 this time. Various projects, however, are known to varying degrees and are named in the Delta Plan:

- 36 " North Bay Aqueduct Alternative Intake Project
- 37 " Central Valley Drinking Water Policy
- 38 " Central Valley Pesticide Total Maximum Daily Load and Basin Plan Amendment for
39 diazinon and chlorpyrifos (regulatory processes, research, and monitoring)
- 40 " Central Valley Pesticide Total Maximum Daily Load and Basin Plan Amendment for
41 pyrethroids (regulatory processes, research, and monitoring)
- 42 " Total Maximum Daily Load and Basin Plan Amendments for selenium and methylmercury
43 (regulatory processes, research, and monitoring)

- 1 " Water Quality Control Plan Update for the San Francisco Bay/ Sacramento-San Joaquin Delta
- 2 Estuary (water flow objectives update)
- 3 " SWRCB/Central Valley RWQCB Strategic Workplan
- 4 " Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS)

5 Of these named projects/actions, only the North Bay Aqueduct Project and the CV-SALTS effort would
6 involve construction and/or operation of facilities that could have impacts related to hazards and
7 hazardous materials. The remaining are programs, policies, or studies that would not result in construction
8 or operation of a specific project which could release hazardous materials into the environment; therefore,
9 these programs, policies, and studies are not evaluated in this section.

10 14.5.3.3.1 Impact 14-1c: Create a Significant Hazard to the Public or the Environment Through the 11 Routine Transport, Use, or Disposal of Hazardous Materials or Through Reasonably 12 Foreseeable Upset and Accident Conditions Involving the Release of Hazardous 13 Materials into the Environment

14 Construction-related activities for the types of water quality improvement actions and projects encouraged
15 by the Proposed Project would be similar to the construction-related activities listed for water supply
16 reliability actions (Section 14.5.3.1).

17 The Delta Plan encourages implementation of the North Bay Aqueduct Alternative Intake Project and the
18 CV-SALTS Project, which could result in the construction of new wastewater treatment facilities. The
19 new North Bay Alternative Intake Structure would improve the quality of the water supply by
20 constructing a new alternative intake structure on the Sacramento River in a rural area of Sacramento or
21 Yolo County and a new pipeline that would extend from the new intake structure to the existing North
22 Bay Regional Water Treatment Plant.

23 The diversion/intake structure and water conveyance pipeline are similar to those associated with the
24 Davis-Woodland Water Supply Project, which while not named in the Delta Plan, nevertheless provides
25 analogous information that provides insight into some of the types of impacts incurred by water quality
26 improvement projects. The analysis of hazard-related impacts in the Davis-Woodland Water Supply
27 Project EIR (City of Davis et al. 2007) found that the project could expose people or structures to
28 substantial adverse effects from hazardous materials and that the impact would be significant. However,
29 specific mitigation measures were identified to reduce the level of impact to less than significant after
30 mitigation, including ensuring that all contractors transport, store and handle construction-related
31 hazardous materials in a manner consistent with relevant regulations and guidelines, including those
32 recommended and enforced by Caltrans, California RWQCB, the local fire departments, and the local
33 environmental health department.

34 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
35 time such projects are proposed by lead agencies. Most of the risk associated with any given project
36 would likely occur during construction, and would therefore be temporary and limited. However, because
37 water quality improvement actions or projects encouraged by the Proposed Project may create a
38 significant hazard to the public or the environment through of release of hazardous materials into the
39 environment, this potential impact is considered **significant**.

1 14.5.3.3.2 Impact 14-2c: Impact 14-2a: Be Located on a Site Which Is Included on a List of
2 Hazardous Materials Sites Compiled Pursuant to Government Code, Section 65962.5
3 and, as a Result, Would Create a Significant Hazard to the Public or the Environment

4 Water quality improvement projects encouraged by the Proposed Project could occur in areas where
5 hazardous waste and substances sites identified on the Cortese List are located, and construction activities
6 could result significant hazards to the public or the environment if these areas sites are encountered.

7 As with the categories of actions already discussed, it is unclear at this time how implementation of the
8 Proposed Project would result in specific construction activities, including the location, number, methods,
9 and duration. The Delta Plan encourages implementation of the North Bay Aqueduct Alternative Intake
10 Project and the CV-SALTS effort. The CV-SALTS project would result in the construction of new
11 wastewater treatment facilities. The new North Bay Alternative Intake Structure serves the purpose of
12 meeting CV-SALTS and water discharge requirements. The new alternative intake structure would be
13 located on the Sacramento River in a rural area of Sacramento or Yolo County and the new pipeline
14 would extend from the new intake structure to the existing North Bay Regional Water Treatment Plant.
15 The diversion/intake structure and water conveyance pipeline are similar to those associated with the
16 Davis-Woodland Water Supply Project, which while not named in the Delta Plan nevertheless provides
17 analogous information.

18 The Davis-Woodland Water Supply Project EIR (City of Davis et al. 2007) found that the project could
19 be located on a site that is included on a list of hazardous materials sites and, as a result would create a
20 significant hazard to the public or environment. Specific mitigation measures were identified to reduce
21 the level of impact to less than significant after mitigation.

22 Another document reviewed for potential impacts is the Grassland Bypass Project EIS/EIR (Reclamation
23 and San Luis & Delta-Mendota Water Authority 2008). This document found that there would be no
24 impacts from hazardous materials.

25 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
26 time such projects are proposed by lead agencies. At that time, projects proponents would be required to
27 consult the list and address impacts associated construction activities within or adjacent to these sites.
28 However, because of the uncertainty regarding the specific location of ecosystem restoration projects and
29 actions encouraged by the Proposed Project and the potential for these to be conducted in areas could
30 occur within areas identified on the list, this potential impact is considered **significant**.

31 14.5.3.3.3 Impact 14-3c: Create Vector Habitat That Would Pose a Significant Public Health Hazard

32 Construction and operations of water quality improvement projects could result in new areas of standing
33 water. For facility construction, these impacts would be generally the same as those described for water
34 supply projects (Impact 14-3a).

35 The Davis-Woodland Water Supply Project EIR (City of Davis et al. 2007) and the Grassland Bypass
36 Project EIS/EIR (Reclamation and San Luis & Delta-Mendota Water Authority 2008) did not specifically
37 analyze potential impacts from disease vectors.

38 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
39 time such projects are proposed by lead agencies. However, there is no substantial evidence that this
40 impact would be significant. This conclusion is based on the review of environmental analyses of similar
41 projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably
42 plausible scenario in which a potential significant impact would occur. It is therefore concluded that this
43 impact would likely be **less than significant**. Future project-specific analyses may develop adequate
44 information to arrive at a different conclusion; however, for purposes of this program-level analysis, there

1 is no available information to indicate that another finding is warranted or supported by substantial
2 evidence.

3 14.5.3.3.4 Impact 14-4c: Increased Safety Hazards Due to Emissions or Handling of Hazardous 4 Materials, Substances, or Waste Within 0.25 Mile of an Existing or Proposed School

5 As described in Section 14.5.3.3.1, relatively small quantities of hazardous materials probably would be
6 onsite during construction of projects encouraged by the Proposed Project. Construction activities could
7 involve deliveries and handling of hazardous materials. Construction of these projects also could expose
8 sensitive receptors in the vicinity of the construction and haul corridors to the potential of accidental
9 hazardous materials spills. Construction sites could be within 0.25 mile of an existing or proposed school.
10 Release, potentially exposing school occupants, could result if materials became air-borne, (e.g., gases or
11 asbestos particles) or could occur through ignition of flammable liquids or vapors. Construction of these
12 projects also could expose schools within 0.25 mile of the construction and haul corridors to the potential
13 of accidental hazardous materials spills. Operation and maintenance of facilities or project features within
14 0.25 mile of schools could result in localized spills and potential releases similar to those listed above.

15 The Davis-Woodland Water Supply Project EIR (City of Davis et al. 2007) found that the project could
16 emit hazardous emissions or handle hazardous materials or waste within one-quarter mile of an existing
17 or proposed school. This impact was considered significant, but could be mitigated to less than significant
18 levels through implementation of specific measures.

19 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
20 time such projects are proposed by lead agencies. However, because it is possible that water quality
21 improvement actions or activities could take place within 0.25 mile of an existing or proposed school, the
22 potential impacts are considered **significant**.

23 14.5.3.3.5 Impact 14-5c: Increase Safety Hazards for People Residing in or Working in the Project 24 Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or Within 25 2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards

26 Like water supply reliability actions or projects, water quality improvement projects encouraged by the
27 Proposed Project could be constructed anywhere in the Project Area, including within the vicinity of
28 airports. Projects that are constructed near airports could have the potential to create a safety hazard for
29 people by placing them in proximity to the hazards associated with airport operations. These impacts and
30 the likelihood that they could be mitigated would be similar to those described for water supply projects
31 (Impact 14-5a).

32 In addition to subjecting people to airport hazards, the construction of water quality improvement projects
33 could adversely affect airport safety by increasing the potential for collisions between aircraft and
34 wildlife. Water quality improvement projects that create standing water (such as treatment ponds) near
35 airports could attract birds that would pose a risk to aircraft.

36 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
37 time such projects are proposed by lead agencies. However, because water quality improvement projects
38 that create open water could attract wildlife that pose a threat to aircraft, the potential impacts are
39 considered **significant**.

40 14.5.3.3.6 14-6c: Expose People or Structures to a Significant Risk of Loss, Injury, or Death 41 Involving Wildland Fires

42 In addition to hazardous materials, wildfires could pose a hazard for people or property in many areas of
43 California. The potential for water quality improvement projects to expose people and structures to
44 wildland fire risk would be similar to that described above (Impact 14-6a) for water supply projects.

1 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
2 time such projects are proposed by lead agencies. However, because water quality improvement projects
3 could be constructed in areas of severe wildland fire risk, this impact is considered **significant**.

4 **14.5.3.4 Flood Risk Reduction**

5 As described in Sections 2A, Proposed Project and Alternatives, and 2B, Introduction to Resource
6 Sections, the Delta Plan does not direct the construction of specific projects, nor would projects be
7 implemented under the direct authority of the Council. However, the Delta Plan seeks to reduce the risk
8 of floods in the Delta by encouraging various actions that, if taken, could lead to completion,

9 construction, and/or operation of projects that could reduce flood risks in the Delta. Such projects and
10 their features could include the following:

- 11 " Setback levees
- 12 " Floodplain expansion
- 13 " Levee maintenance
- 14 " Levee modification
- 15 " Dredging
- 16 " Stockpiling of rock for flood emergencies
- 17 " Subsidence reversal
- 18 " Reservoir reoperation

19 The number and location of all potential projects that could be implemented are not known at this time.
20 Two possible projects, however, are known to some degree and are named in the Delta Plan: the
21 Sacramento River Deep Water Ship Channel and Stockton Deep Water Ship Channel Dredging (the
22 United States Army Corps of Engineer's Delta Dredged Sediment Long-Term Management Strategy
23 included in Appendix C, Attachment C-7 of this EIR) and DWR's A Framework for Department of Water
24 Resources Investments in Delta Integrated Flood Management.

25 **14.5.3.4.1 Impact 14-1d: Create a Significant Hazard to the Public or the Environment Through the** 26 **Routine Transport, Use, or Disposal of Hazardous Materials or Through Reasonably** 27 **Foreseeable Upset and Accident Conditions Involving the Release of Hazardous** 28 **Materials into the Environment**

29 Construction-related activities for the types of flood risk reduction actions and projects encouraged by the
30 Proposed Project and their impacts would be similar to the construction-related activities listed for water
31 supply reliability actions (Section 14.5.3.1).

32 It is not known at this time what types or where construction of specific flood risk reduction projects that
33 could result in localized spills would occur. To gain insight into the types of impacts that could occur as a
34 result of flood risk reduction projects, the North Delta Flood Control and Ecosystem Restoration Project
35 EIR (DWR 2010) was reviewed. The North Delta Flood Control and Ecosystem Restoration Project was
36 described in the ecosystem restoration subsection (Section 11.4.3.2.1). In the EIR for this project, DWR
37 found that construction impacts from the release of hazardous materials would be less than significant if
38 mitigated by properly disposing of contaminated materials produced or uncovered during construction.

39 Other documents reviewed for potential impacts included the EIR for the Long-Term Management
40 Strategy for the Placement of Dredged Material in the San Francisco Bay Region Final Policy
41 (USACE et al. 1998) and the USACE Draft Supplemental EIS/EIR for the Sacramento River Deep Water
42 Ship Channel (USACE and Port of West Sacramento 2011). Both documents found that environmental
43 risks associated with the dredge material would be less than significant with mitigation.

1 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
2 time such projects are proposed by lead agencies. However, because flood risk reduction actions or
3 projects encouraged by the Proposed Project may create a significant hazard to the public or the
4 environment through the routine transport, use, or disposal of hazardous materials or reasonably
5 foreseeable upset and accident conditions involving the release of hazardous materials into the
6 environment, this potential impact is considered **significant**.

7 **14.5.3.4.2 Impact 14-2d: Be Located on a Site Which Is Included on a List of Hazardous Materials**
8 **Sites Compiled Pursuant to Government Code, Section 65962.5 and, as a Result, Would**
9 **Create a Significant Hazard to the Public or the Environment**

10 Flood risk reduction projects encouraged by the Proposed Project could occur in areas where hazardous
11 waste and substances sites identified on the Cortese List are located, and construction activities could
12 result significant hazards to the public or the environment if these areas sites are encountered. As
13 described for Impact 14-2a, project-level impacts would be addressed in future site-specific
14 environmental analysis conducted at the time such projects are proposed by lead agencies. At that time,
15 projects proponents would be required to consult the list and address impacts associated construction
16 activities within or adjacent to these sites.

17 The USACE Draft Supplemental EIS/EIR for the Sacramento River Deep Water Ship Channel
18 (USACE and Port of West Sacramento 2011) is an example of such a site-specific evaluation. It found
19 that there would be no impact related to the release of materials from actions taken in areas of known
20 hazardous, toxic, and radioactive wastes.

21 Because of the uncertainty regarding the specific location of flood risk reduction projects and actions
22 encouraged by the Proposed Project and the potential for these to be conducted in areas could occur
23 within areas identified on the list, this potential impact is considered **significant**.

24 **14.5.3.4.3 Impact 14-3d: Create Vector Habitat That Would Pose a Significant Public Health Hazard**

25 Construction and operations of the types of flood risk reduction projects could result in new areas of
26 standing water. For example, increasing floodplains and disposing of dredged material spoils could
27 increase standing water that would support the mosquito populations.

28 In the EIR for North Delta Flood Control and Ecosystem Restoration Project (DWR 2010), DWR found
29 that any impact associated with exposure of people to mosquitoes would be less than significant with the
30 incorporation of operational mitigation measures, including designing dredged material drying areas to
31 decrease potential mosquito breeding habitat.

32 Other documents reviewed for potential impacts included the EIR for the Long-Term Management
33 Strategy for the Placement of Dredged Material in the San Francisco Bay Region Final Policy
34 (USACE et al. 1998) and the USACE Draft Supplemental EIS/EIR for the Sacramento River Deep Water
35 Ship Channel (USACE and Port of West Sacramento 2011). Neither document specifically analyzed
36 potential impacts from disease vectors.

37 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
38 time such projects are proposed by lead agencies. However, because of the potential for flood risk
39 reduction actions encouraged by the Proposed Project to create vector habitat that would pose a
40 significant public health hazard, this potential impact is considered **significant**.

1 **14.5.3.4.4 Impact 14-4d: Increased Safety Hazards Due to Emissions or Handling of Hazardous**
2 **Materials, Substances, or Waste Within 0.25 Mile of an Existing or Proposed Schools**

3 As described in Section 14.5.3.4.1, relatively small quantities of hazardous materials probably would be
4 onsite during construction of flood risk reduction projects encouraged by the Delta Plan. Construction
5 activities could involve deliveries and handling of hazardous materials and could cause releases within
6 0.25 mile of an existing or proposed school. Construction of these projects could expose schools within
7 0.25 mile of the construction and haul corridors to the potential of accidental hazardous materials spills.

8 Flood risk reduction actions or projects the Proposed Project would encourage would be constructed
9 primarily in and near the Delta. The location, number, capacity, and methods and duration of construction
10 activities associated with the Proposed Project are not currently known, and it is possible that flood risk
11 reduction actions or activities could take place within 0.25 mile of an existing or proposed school.

12 Therefore, this impact is considered **significant**.

13 **14.5.3.4.5 Impact 14-5d: Increased Safety Hazards for People Residing in or Working in the Project**
14 **Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or Within**
15 **2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards**

16 Flood risk reduction projects could be constructed near airports, and could have the potential to create a
17 safety hazard for people by placing them in proximity to the hazards associated with airport operations.
18 These impacts and the likelihood that they could be mitigated would be similar to those described for
19 water supply projects (Impact 14-5a).

20 In addition to subjecting people to airport hazards, the construction of flood risk reduction projects could
21 adversely affect airport safety by increasing the potential for collisions between aircraft and wildlife.
22 Flood risk reduction projects, such as expanded floodplains, could create standing water that could attract
23 birds that would pose a risk to aircraft using nearby airports. For example, the EIR for the Natomas Levee
24 Improvement Program, Phase 3 Landside Improvements Project proposed extensive levee improvements
25 to the Natomas Levee system, similar to levee improvement and construction encouraged as part of flood
26 risk reduction projects under the proposed Delta Plan (SAFCA 2009). Some of these levees occurred
27 within the Sacramento International Airport land. Also adjacent to the airport were wetlands and
28 agricultural lands. However, in evaluating the potential for creating airport safety hazards, the lead agency
29 found that wildlife hazards within the vicinity of the airport would be less than significant because of
30 drainage improvements of bufferlands at the airport.

31 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
32 time such projects are proposed by lead agencies. However, because flood risk reduction projects that
33 create open water could attract wildlife that pose a threat to aircraft, the potential impacts are considered
34 **significant**.

35 **14.5.3.4.6 14-6d: Expose People or Structures to a Significant Risk of Loss, Injury, or Death**
36 **Involving Wildland Fires**

37 In addition to hazardous materials, wildfires could pose a hazard for people or property in many areas of
38 California. The potential for water quality improvement projects to expose people and structures to
39 wildland fire risk would be similar to that described above (Impact 14-6b) for ecosystem restoration
40 projects.

41 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
42 time such projects are proposed by lead agencies. However, there is no substantial evidence that this
43 impact would be significant. This conclusion is based on the inability to identify a reasonably plausible
44 scenario in which a potential significant impact would occur. It is therefore concluded that this impact
45 would likely be **less than significant**. Future project-specific analyses may develop adequate information

1 to arrive at a different conclusion; however, for purposes of this program-level analysis, there is no
2 available information to indicate that another finding is warranted or supported by substantial evidence.

3 **14.5.3.5 Protection and Enhancement of Delta as an Evolving Place**

4 As described in Sections 2A, Proposed Project and Alternatives, and 2B, Introduction to Resource
5 Sections, the Delta Plan does not direct the construction of specific projects, nor would projects be
6 implemented under the direct authority of the Council. However, the Delta Plan seeks to protect and
7 enhance the Delta as an evolving place by encouraging various actions and projects that, if taken, could
8 lead to completion, construction, and/or operation of associated projects. Features of such actions and
9 could include the following:

- 10 " Gateways, bike lanes, parks, trails, and marinas and facilities to support wildlife viewing, angling,
11 and hunting opportunities
- 12 " Additional retail and restaurants in legacy towns to support tourism

13 The number and location of all potential projects that could be implemented are not known at this time.
14 However, four possible projects are known to some degree and are named in the Delta Plan: new State
15 Parks at Barker Slough, at Elkhorn Basin, and in the southern Delta, and the Economic Sustainability
16 Plan. There are no project-specific environmental evaluations of the three State Park projects. The
17 Economic Sustainability Plan is not an activity that would result in impacts related to hazards and
18 hazardous materials; therefore, this project is not evaluated in this section.

19 **14.5.3.5.1 Impact 14-1e: Create a Significant Hazard to the Public or the Environment Through the** 20 **Routine Transport, Use, or Disposal of Hazardous Materials or Through Reasonably** 21 **Foreseeable Upset and Accident Conditions Involving the Release of Hazardous** 22 **Materials into the Environment**

23 Construction-related activities would require the use of the same types of hazardous materials described
24 in Section 14.5.3.1.1 (reliable water supply). The use of lubricants, fuels, and other hazardous materials
25 during construction, of Delta enhancement projects encouraged by the Delta Plan would be similar to that
26 described above for water supply reliability actions in Section 14.5.3.1.1, but at a much-reduced scale and
27 in a smaller geographic area.

28 Certain ongoing projects are similar to Delta park projects encouraged by the Proposed Project, such as
29 the Barker Slough and Elkhorn Basin State Parks, and are comparable to some of the general types of
30 Delta-enhancing projects listed above. These ongoing projects have undergone project-specific
31 environmental review in the Bidwell-Sacramento River State Park Habitat Restoration and Outdoor
32 Recreation Facilities Development Project EIR (DPR 2008) and San Luis Rey River Park Master Plan
33 EIR (San Diego County Department of Parks and Recreation 2008). In both cases, the lead agency found
34 that with implementation of standardized mitigation requirements, impacts from the release of hazardous
35 materials would be less than significant with implementation of mitigation measures, including pre-
36 construction inspections for existing leaks on construction equipment, preparation of an SWPPP, daily
37 cleaning of equipment, and the writing and implementation of an operational hazardous materials
38 management work plans.

39 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
40 time such projects are proposed by lead agencies. However, because Delta as an evolving place actions or
41 projects encouraged by the Proposed Project may create a significant hazard to the public or the
42 environment through the routine transport, use, or disposal of hazardous materials or reasonably
43 foreseeable upset and accident conditions involving the release of hazardous materials into the
44 environment, this potential impact is considered **significant**.

1 14.5.3.5.2 Impact 14-2e: Impact 14-2a: Be Located on a Site Which Is Included on a List of
2 Hazardous Materials Sites Compiled Pursuant to Government Code, Section 65962.5
3 and, as a Result, Would Create a Significant Hazard to the Public or the Environment

4 Projects to enhance the Delta as an evolving place could occur in areas where hazardous waste and
5 substances sites identified on the Cortese List are located, and construction activities could result
6 significant hazards to the public or the environment if these areas sites are encountered. As described for
7 Impact 14-2a, project-level impacts would be addressed in future site-specific environmental analysis
8 conducted at the time such projects are proposed by lead agencies. At that time, projects proponents
9 would be required to consult the list and address impacts associated construction activities within or
10 adjacent to these sites. However, because of the uncertainty regarding the specific location of Delta
11 enhancement projects and actions encouraged by the Proposed Project and the potential for these to be
12 conducted in areas that could encounter areas identified on the list, this potential impact is considered
13 **significant**.

14 14.5.3.5.3 Impact 14-3e: Create Vector Habitat That Would Pose a Significant Public Health Hazard

15 Construction and operations of Delta enhancement projects would be unlikely to result in new areas of
16 standing water that could create mosquito habitat. Neither the Bidwell-Sacramento River State Park
17 Habitat Restoration and Outdoor Recreation Facilities Development Project EIR (DPR 2008) nor the
18 San Luis Rey River Park Master Plan EIR (San Diego County Department of Parks and Recreation 2008)
19 addressed creating habitat for vectors (mosquitoes) that could present significant health hazards.

20 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
21 time such projects are proposed by lead agencies. However, there is no substantial evidence that this
22 impact would be significant. This conclusion is based on the review of environmental analyses of similar
23 projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably
24 plausible scenario in which a potential significant impact would occur. It is therefore concluded that this
25 impact would likely be **less than significant**. Future project-specific analyses may develop adequate
26 information to arrive at a different conclusion; however, for purposes of this program-level analysis, there
27 is no available information to indicate that another finding is warranted or supported by substantial
28 evidence.

29 14.5.3.5.4 Impact 14-4e: Increased Safety Hazards Due to Emissions or Handling of Hazardous
30 Materials, Substances, or Waste Within 0.25 Mile of an Existing or Proposed School

31 As described in Section 14.5.3.5.1, relatively small quantities of hazardous materials probably would be
32 onsite during construction of facilities to enhance the Delta as an evolving place and construction
33 activities could involve deliveries and handling of hazardous materials. Construction of these projects also
34 could expose sensitive receptors in the vicinity of the construction and haul corridors to the potential of
35 accidental hazardous materials spills. Construction sites could be within 0.25 mile of an existing or
36 proposed school. Release, potentially exposing school occupants, could result if materials became air-
37 borne, (e.g., gases or asbestos particles) or could occur through ignition of flammable liquids or vapors.
38 Construction of these projects also could expose schools within 0.25 mile of the construction and haul
39 corridors to the potential of accidental hazardous materials spills. Operation and maintenance of facilities
40 or project features within 0.25 mile of schools could result in localized spills and potential releases similar
41 to those listed above.

42 The San Luis Rey River Park Master Plan EIR (San Diego County Department of Parks and Recreation
43 2008) concluded that the construction of the proposed San Luis Rey River Park project may result in the
44 generation of certain types of emissions to air (e.g., petroleum hydrocarbons, fugitive dust) or the
45 handling of hazardous materials or wastes within 0.25 mile of an existing or proposed school. But,
46 because of the scale and type of the proposed project, it was concluded that the impact would be less than
47 significant. This impact was not evaluated in the Bidwell-Sacramento River State Park Habitat

1 Restoration and Outdoor Recreation Facilities Development Project EIR (The Nature Conservancy and
2 DPR) because the project was not located near a school.

3 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
4 time such projects are proposed by lead agencies. However, because Delta as an evolving place actions or
5 projects encouraged by the Proposed Project may pose safety hazards within 0.25 mile of a school, this
6 potential impact is considered **significant**.

7 14.5.3.5.5 Impact 14-5e: Increased Safety Hazards for People Residing in or Working in the Project 8 Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or Within 9 2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards

10 Delta enhancement actions or projects the Delta Plan would encourage would be constructed in and near
11 the Delta. While it is possible that enhancement projects could be constructed within 2 miles of an airport,
12 it is unlikely that scope and type of project would be sufficient to cause an adverse affect. It is also
13 unlikely that enhancement actions would attract wildlife capable of causing an airport hazard. Neither of
14 the two reference EIRs described in Impact 14.2.3.5.4, were constructed within 2 miles of an airport.

15 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
16 time such projects are proposed by lead agencies. However, there is no substantial evidence that this
17 impact would be significant. This conclusion is based on the review of environmental analyses of similar
18 projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably
19 plausible scenario in which a potential significant impact would occur. It is therefore concluded that this
20 impact would likely be **less than significant**. Future project-specific analyses may develop adequate
21 information to arrive at a different conclusion; however, for purposes of this program-level analysis, there
22 is no available information to indicate that another finding is warranted or supported by substantial
23 evidence.

24 14.5.3.5.6 Impact 14-6e: Expose People or Structures to a Significant Risk of Loss, Injury, or Death 25 Involving Wildland Fires

26 The potential for water quality improvement projects to expose people and structures to wildland fire risk
27 would be similar to that described above (Impact 14-6b) for ecosystem restoration projects.

28 The San Luis Rey River Park Master Plan EIR (San Diego County Department of Parks and Recreation
29 2008) found that the project could be subject to wildland fire, but concluded that because only a few
30 permanent structures such as restrooms and refreshment stands were proposed, the project would not
31 expose people or structures to a significant risk of loss, injury, or death. It also concluded that the impact
32 would be less than significant because the project would comply with the regulations relating to
33 emergency access, water supply, and defensible space.

34 While the example EIR indicated a potential to be influenced by wildfire, that is not likely the case in the
35 Delta where enhancement projects would take place. Project-level impacts would be addressed in future
36 site-specific environmental analysis conducted at the time such projects are proposed by lead agencies.
37 However, there is no substantial evidence that this impact would be significant. This conclusion is based
38 on the inability to identify a reasonably plausible scenario in which a potential significant impact would
39 occur. It is therefore concluded that this impact would likely be **less than significant**. Future project-
40 specific analyses may develop adequate information to arrive at a different conclusion; however, for
41 purposes of this program-level analysis, there is no available information to indicate that another finding
42 is warranted or supported by substantial evidence.

1 **14.5.3.6 Mitigation Measures**

2 Any covered action that would have one or more of the significant environmental impacts listed above
3 shall incorporate the following features and/or requirements related to such impacts.

4 With regard to covered actions implemented under the Delta Plan, these mitigation measures will reduce
5 the impacts of the Proposed Project. Project-level analysis by the agency proposing the covered action
6 will determine whether the measures are sufficient to reduce those impacts to a less-than-significant level.
7 Generally speaking, many of these measures are commonly employed to minimize the severity of an
8 impact and in many cases would reduce impacts to a less-than-significant level, as discussed below in
9 more detail.

10 With regard to actions taken by other agencies on the basis of Delta Plan recommendations (i.e., activities
11 that are not covered actions), the implementation and enforcement of these measures would be within the
12 responsibility and jurisdiction of public agencies other than the Council. Those agencies can and should
13 adopt these measures as part of their approval of such actions, but the Council does not have the authority
14 to require their adoption. Therefore, significant impacts of noncovered actions could remain **significant**
15 **and unavoidable**.

16 How mitigation measures in this EIR relate to covered and noncovered actions is discussed in more detail
17 in Section 2B, Introduction to Resource Sections.

18 **14.5.3.6.1 Mitigation Measure 14-1**

19 The hazardous materials that would be used during construction or unearthed during construction present
20 a relatively low public health risk, but could contaminate air quality or surface water or groundwater if a
21 release occurred. Use of BMPs would reduce the potential for the release of construction-related fuels and
22 other hazardous materials to stormwater and receiving waters as discussed in Section 2A, Proposed
23 Project and Alternatives. BMPs prevent sediment and stormwater contamination from spills or leaks,
24 control the amount of runoff from the site, and require proper disposal or recycling of hazardous
25 materials.

26 The following mitigation measures would reduce the effects of Impacts 14-1a through e, 14-2a through e,
27 and 14-4a through e:

- 28 " Refueling and maintenance of vehicles and equipment to occur only in designated areas that are
29 either bermed or covered with concrete, asphalt, or other impervious surfaces to control
30 potential spills.
- 31 " Refueling of vehicles and equipment to occur only when employees are present.
- 32 " Vehicle and equipment service and maintenance conducted only by authorized personnel.
- 33 " Refueling conducted only with approved pumps, hoses, and nozzles.
- 34 " Catch-pans placed under equipment to catch potential spills during servicing.
- 35 " All disconnected hoses placed in containers to collect residual fuel from the hoses.
- 36 " Vehicle engines shut down during refueling.
- 37 " No smoking, open flames, or welding allowed in refueling or service areas.
- 38 " Refueling performed away from bodies of water to prevent contamination of water in the event of
39 a leak or spill.
- 40 " When refueling is completed, the service truck to leave the project site.

- 1 " Service trucks provided with fire extinguishers and spill containment equipment, such as
2 absorbents.
- 3 " Should a spill contaminate soil, the soil shall be placed in containers and disposed of as
4 appropriate. All containers used to store hazardous materials to be inspected at least once per
5 week for signs of leaking or failure. All maintenance and refueling areas to be inspected monthly.
6 Results of inspections to be recorded in a logbook maintained onsite.
- 7 " Provision of an automatic sprinkler system for indoor hazardous material storage areas.
- 8 " Provision of an exhaust system for indoor hazardous material storage areas.
- 9 " Separation of incompatible materials by isolating them from each other with a noncombustible
10 partition.
- 11 " Spill control in all storage, handling, and dispensing areas.
- 12 " Separate secondary containment for each chemical storage system. The secondary containment is
13 required to hold the entire contents of the tank plus the volume of water for the fire suppression
14 system that could be used for fire protection for a period of 20 minutes in the event of a
15 catastrophic spill.

16 These types of mitigation measures are generally standard. In most cases, they reduce significant impacts
17 related to hazardous materials to less-than-significant levels.

18 In the unlikely event of a spill, the spill shall be reported to the appropriate regulatory agencies and
19 contaminated soil shall be cleaned, treated, and/or removed in accordance with regulatory requirements.
20 Small spills shall be contained and cleaned up immediately by trained, onsite personnel. Larger spills
21 shall be reported via emergency phone numbers to obtain help from offsite containment and cleanup
22 crews. All personnel working on the project during the construction phase shall be trained in handling
23 hazardous materials and the dangers associated with hazardous materials. An onsite health and safety
24 person shall be designated to implement health and safety guidelines and to contact emergency response
25 personnel and the local hospital, if necessary.

26 If there is a large spill from a service or refueling truck, contaminated soil shall be placed into barrels or
27 trucks by service personnel for offsite disposal at an appropriate facility in accordance with law. If a spill
28 involves hazardous materials quantities equal to or greater than the specific Reportable Quantities as
29 required by regulatory agencies (42 gallons for petroleum products), all federal, State, and local reporting
30 requirements shall be followed. In the event of a fire or injury, the local fire department shall be called.

31 This mitigation measure would likely reduce the impact due to hazardous materials spills to a less-than-
32 significant level. However, as discussed above, with regard to actions taken by other agencies on the basis
33 of Delta Plan recommendations (i.e., activities that are not covered actions), the implementation and
34 enforcement of these measures would be within the responsibility and jurisdiction of public agencies
35 other than the Council. For these reasons, impacts due to hazardous spills would remain **significant**.

36 14.5.3.6.2 Mitigation Measure 14-2

37 The following mitigation measures would reduce the effects of Impacts 14-1a through e, 14-2a through e,
38 and 14-4a through e:

- 39 " To reduce the risk due to increased exposure to materials that could be released during soil
40 disturbance, worker training programs and breathing apparatus shall be provided. Monitoring
41 programs shall be implemented as areas are excavated to determine the potential for exposure to
42 soil organisms or other constituents.

1 " To reduce risk to the community due to increased exposure to materials that could be released
2 during soil disturbance, public outreach programs shall be conducted to educate the public of the
3 types of construction activities and risks that could occur. In areas near extreme hazards, such as
4 construction in areas with identified petroleum-product pipelines or soils with high concentrations
5 of petroleum products, warning sirens shall be used at construction sites to immediately notify
6 workers and residents. Emergency procedures shall be included in the education and outreach
7 programs for the workers and the community.

8 This mitigation measure will likely reduce the impact to sensitive receptors due to hazardous materials
9 releases to a less-than-significant level. However, as discussed above, with regard to actions taken by
10 other agencies on the basis of Delta Plan recommendations (i.e., activities that are not covered actions),
11 the implementation and enforcement of these measures would be within the responsibility and jurisdiction
12 of public agencies other than the Council. For these reasons, impacts to sensitive receptors due to
13 hazardous releases would remain **significant**.

14 14.5.3.6.3 Mitigation Measure 14-3

15 The following mitigation measures would reduce the effects of Impacts 14-3a through e:

16 " Freshwater habitat management to include water-control-structure management, vegetation
17 management, mosquito predator management, drainage improvements, and coordination with the
18 DFG regarding these strategies and specific techniques to help minimize mosquito production.

19 " Maintenance of permanent ponds that increase the diversity of waterfowl yet decrease the
20 introduction of vectors through constant circulation of water, vegetation control, and periodic
21 draining of ponds.

22 " Tidal management focused on mosquito problems arising from the residual tidal and floodwaters
23 remaining in depressions and cracked ground (SCMAD 2011).

24 " Avoidance of ponding in tidal marsh habitat or in areas within the waterside of setback levees.
25 Design of ecosystem restoration areas, waterfowl hunting areas, setback levees, parks, canals, and
26 surface water storage facilities to minimize standing water, or use of other methods such as
27 mosquito fish to reduce mosquito breeding.

28 These mitigation measures would likely reduce the impacts due to vectors to a less-than-significant level.
29 However, as discussed above, with regard to actions taken by other agencies on the basis of Delta Plan
30 recommendations (i.e., activities that are not covered actions), the implementation and enforcement of
31 these measures would be within the responsibility and jurisdiction of public agencies other than the
32 Council. For these reasons, impacts due to vector increases would remain **significant**.

33 14.5.3.6.4 Mitigation Measure 14-4

34 The following mitigation measures would reduce the effects of Impacts 14-4a through e:

35 " Avoid creating hazardous wildlife attractants within a distance of 10,000 feet of an Airport
36 Operations Area.

37 " Maintain a distance of 5 statute miles between the farthest edge of the Airport Operations Area
38 and hazardous wildlife attractants.

39 These mitigation measures would likely reduce the impacts of birds creating aircraft safety hazards within
40 the vicinity of an airport to a less-than-significant level. However, as discussed above, with regard to
41 actions taken by other agencies on the basis of Delta Plan recommendations (i.e., activities that are not
42 covered actions), the implementation and enforcement of these measures would be within the

1 responsibility and jurisdiction of public agencies other than the Council. For these reasons, impacts due to
2 impacts of birds creating aircraft safety hazards would remain **significant**.

3 14.5.3.6.5 Mitigation Measure 14-5

4 The following mitigation measure would reduce the effects of Impacts 14-6a and c:

5 " Prepare and implement a fire management plan to minimize potential for wildland fires

6 This mitigation measure will likely reduce the exposure of people and structures to wildland fires to a
7 less-than-significant level. However, as discussed above, with regard to actions taken by other agencies
8 on the basis of Delta Plan recommendations (i.e., activities that are not covered actions), the
9 implementation and enforcement of these measures would be within the responsibility and jurisdiction of
10 public agencies other than the Council. For these reasons, exposure of people or structures to wildland fire
11 impact would remain **significant**.

12 14.5.4 No Project Alternative

13 As described in Section 2A, Proposed Project and Alternatives, the No Project Alternative is based on the
14 continuation of existing plans and policies and the continued operation of existing facilities into the
15 future. Several ongoing projects have been identified as part of the No Project Alternative. The list of
16 projects included in the No Project Alternative is presented in Table 2-2.

17 The No Project Alternative includes various water supply projects and one ecosystem enhancement
18 project, as described in Section 2A, Proposed Project and Alternatives. These generally would have the
19 same types of impacts due to hazards and hazardous materials as would occur under the Proposed Project.
20 However, the Delta Plan would not be in place to encourage various other projects to move forward. To
21 the extent the absence of the Delta Plan results in those projects not happening, there would be no hazards
22 or hazardous material impacts associated with them.

23 Compared to the Proposed Project, the No Project Alternative would result in fewer actions and projects
24 to improve water supply reliability, restore the Delta ecosystem, improve water quality, reduce flood risk,
25 and protect and enhance the Delta as an evolving place. Overall, the reduced number of projects and
26 actions under the No Project Alternative would reduce the impacts associated with hazards and hazardous
27 materials resulting from construction and operation of those projects. In addition to a general reduction in
28 the number of projects with relatively small construction footprints, the large-scale surface water storage
29 facilities and increased levee modification and maintenance encouraged under the Proposed Project would
30 not move forward under the No Project Alternative, and the impacts associated with these projects would
31 not occur. Similarly, fewer ecosystem restoration projects would proceed under the No Project
32 Alternative, resulting in **fewer** construction impacts.

33 14.5.5 Alternative 1A

34 Under Alternative 1A, the construction and operation of surface water projects (water intakes, treatment
35 and conveyance facilities, and reservoirs) would be the same as the Proposed Project. As described in
36 Section 2A, Proposed Project and Alternatives, there would be fewer groundwater projects (wells,
37 wellhead treatment, conveyance facilities, ocean desalination projects, recycled wastewater and
38 stormwater projects (treatment and conveyance facilities), water transfers, and water use efficiency and
39 conservation programs would be reduced relative to the Proposed Project.

40 Projects to restore the Delta ecosystem would be reduced relative to the Proposed Project and the
41 implementation of flow objectives that could lead to a more natural flow regime in the Delta would not be
42 accelerated. Stressor management activities and invasive species management (including removal of
43 invasive vegetation) would be the same as described for the Proposed Project.

1 Project and actions to improve water quality would be the same as under the Proposed Project. Flood risk
2 reduction projects also would be the same as the Proposed Project, except that levee maintenance and
3 modification would be less emphasized on levees that protect agricultural land and more emphasis on
4 levees that protect water supply corridors, which could result in an overall reduction in these activities.
5 Projects to protect and enhance the Delta as an evolving place would be the same as the Proposed Project.

6 **14.5.5.1.1 Impact 14-1: Create a Significant Hazard to the Public or the Environment Through the**
7 **Routine Transport, Use, or Disposal of Hazardous Materials or Through Reasonably**
8 **Foreseeable Upset and Accident Conditions Involving the Release of Hazardous**
9 **Materials into the Environment**

10 Potential impacts from hazardous material spills would be reduced under Alternative 1A relative to the
11 Proposed Project because of the reduction in projects related to water supply reliability, such as
12 groundwater projects, ocean desalination projects, recycled wastewater and stormwater projects.
13 Construction impacts associated with ecosystem restoration and flood risk reduction also would be
14 reduced because fewer of those activities would be conducted or facilities constructed. This reduction in
15 activity and construction would decrease the potential for impacts from hazardous materials.

16 The update and implementation of the Water Quality Control Plan would not be accelerated under
17 Alternative 1A. This could result in fewer impacts associated with water supply reliability projects
18 constructed to respond to a potential reduction in exports.

19 These reductions in impacts are primarily related to construction activities, which would generate only
20 temporary and limited impacts even under the Proposed Project. The difference between the alternative
21 and the Proposed Project is thus not large.

22 Overall, significant adverse impacts related to hazards and hazardous materials under Alternative 1A
23 would be slightly **less than** under the Proposed Project because there would be less construction activity;
24 impacts of operations would be similar.

25 As compared to existing conditions, the impacts related to hazards and hazardous materials under
26 Alternative 1A would be **significant**.

27 **14.5.5.1.2 Impact 14-2: Impact 14-2a: Be Located on a Site Which Is Included on a List of**
28 **Hazardous Materials Sites Compiled Pursuant to Government Code, Section 65962.5**
29 **and, as a Result, Would Create a Significant Hazard to the Public or the Environment**

30 Potential impacts on due to release of materials from contaminated sites would be somewhat reduced
31 relative to the Proposed Project under Alternative 1A for the same reasons described above for
32 Impact 14-1. However, because the locations and details of projects and actions that might be constructed
33 are not currently known, the potential impact due to release of materials from contaminated sites is
34 considered significant.

35 Overall, significant adverse impacts related to release of hazardous materials under Alternative 1A would
36 be slightly **less than** under the Proposed Project because there would be less construction activity;
37 impacts of operations would be similar.

38 As compared to existing conditions, the impacts related to release of hazardous materials under
39 Alternative 1A would be **significant**.

40 **14.5.5.1.3 Impact 14-3: Create Vector Habitat That Would Pose a Significant Public Health Hazard**

41 Vector-related impacts would be the same as under Alternative 1A compared to the Proposed Project
42 because of the projects with the greatest potential to create vector habitat (surface storage reservoirs)
43 would be the same. Vector-related impacts associated with ecosystem restoration would likely be less

1 because less habitat restoration involving standing water would be developed. Flood risk reduction
2 activities also would be reduced because fewer of those activities would be conducted or facilities
3 constructed, and therefore the risks associated with Alternative 1A would be reduced compared to the
4 Proposed Project. The potential for water quality improvement projects and Delta enhancement projects
5 to pose a public health hazard would be about the same as the Proposed Project.

6 Overall significant adverse impacts related to vectors under Alternative 1A would be **less than** under the
7 Proposed Project because in a reduction in the potential to create vector habitat associated with ecosystem
8 restoration and flood risk reduction.

9 As compared to existing conditions, the impacts related to vectors under Alternative 1A would be
10 **significant**.

11 14.5.5.1.4 Impact 4-4: Increased Safety Hazards Due to Emissions or Handling of Hazardous 12 Materials, Substances, or Waste Within 0.25 Mile of an Existing or Proposed School

13 The potential for impacts associated with increased safety hazards due to emissions or handling of
14 hazardous materials within 0.25 mile of a school would be reduced under Alternative 1A relative to the
15 Proposed Project because of the reduction in projects related to water supply reliability, such as
16 groundwater projects, ocean desalination projects, recycled wastewater and stormwater projects. The
17 same impacts associated with ecosystem restoration and flood risk reduction activities also would be
18 reduced because fewer of those activities would be conducted or facilities constructed. This reduction in
19 activity and construction would decrease the potential for emissions or spills to occur within 0.25 mile of
20 a school.

21 The update and implementation of the Water Quality Control Plan would not be accelerated under
22 Alternative 1A. This could result in fewer impacts associated with water supply reliability projects
23 constructed to respond to a potential reduction in exports.

24 These reductions in impacts are primarily related to construction activities, which would generate only
25 temporary and limited impacts even under the Proposed Project. The difference between the alternative
26 and the Proposed Project is thus not large.

27 Overall, significant adverse impacts related to emissions, handling, and transport of hazardous materials
28 near a school under Alternative 1A would be slightly **less than** under the Proposed Project.

29 As compared to existing conditions, the impacts related to emissions and handling of hazardous materials
30 near a school under Alternative 1A would be **significant**.

31 14.5.5.1.5 Impact 4-5: Increased Safety Hazards for People Residing in or Working in the Project 32 Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or Within 33 2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards

34 The impacts of projects or activities conducted under Alternative 1A within the area of a private airstrip,
35 airport land use plan or within 2 miles of a public or public use airport would likely be same as the
36 Proposed Project because of the consistency requirements of airport land use plans. Actions that create
37 conditions that attract birds (e.g., wetland and floodplain restoration) that could collide with aircraft using
38 a nearby airport could be decreased under Alternative 1A because fewer acres of these types of attractants
39 would be constructed.

40 Overall, significant adverse impacts related to increased safety hazards near an airport under
41 Alternative 1A would be **less than** under the Proposed Project.

42 As compared to existing conditions, the impacts related to increased safety hazards near an airport under
43 Alternative 1A would be **significant**.

1 **14.5.5.1.6 Impact 4-6: Expose People or Structures to a Significant Risk of Loss, Injury, or Death**
2 **Involving Wildland Fires**

3 The construction of water supply and water quality improvement facilities in fire-prone areas could
4 expose people and structures to wildland fires. Under Alternative 1A, facilities that would include
5 structures and require staff on site for operation would similar to that of the Proposed Project. Like the
6 Proposed Project, ecosystem restoration, flood risk reduction, and Delta enhancement projects would not
7 likely be constructed in fire-prone areas, and therefore would be expected to expose people or structures
8 to wildland fires.

9 Overall, significant adverse impacts resulting from exposure of people and structures to wildland fire
10 under Alternative 1A would be the **same as** under the Proposed Project.

11 As compared to existing conditions, the impacts related to increased safety hazards near an airport under
12 Alternative 1A would be **significant**.

13 **14.5.5.2 Mitigation Measures**

14 Mitigation measures for impacts associated with Alternative 1A would be the same as those described for
15 the Proposed Project in Sections 14.5.3.6.1 (Mitigation Measure 14-1), 14.5.3.6.2 (Mitigation
16 Measure 14-2), 14.5.3.6.3 (Mitigation Measure 14-3), 14.4.3.6.4 (Mitigation Measure 14-4), and
17 14.5.3.6.5 (Mitigation Measure 14-5). Because it is not known whether the mitigation measures listed
18 above would reduce impacts to a less-than-significant level for Alternative 1A, these potential impacts are
19 considered **significant and unavoidable**.

20 **14.5.6 Alternative 1B**

21 Under Alternative 1B, the construction and operation of surface water projects (water intakes, treatment
22 and conveyance facilities, and reservoirs) would be the same as the Proposed Project. As described in
23 Section 2A, Proposed Project and Alternatives there would be fewer groundwater projects (wells,
24 wellhead treatment, and conveyance facilities), recycled wastewater and stormwater projects (treatment
25 and conveyance facilities), water transfers, and water use efficiency and conservation programs would be
26 reduced relative to the Proposed Project. There would be no ocean desalination projects.

27 Projects to restore the Delta ecosystem would be reduced in extent relative to the Proposed Project and
28 would not emphasize restoration of floodplains in the lower San Joaquin River. Implementation of flow
29 objectives would not be accelerated or include public trust considerations. Stressor management activities
30 and invasive species management (including removal of invasive vegetation) would be increased relative
31 to the Proposed Project, but a variance to the USACE Levee Vegetation Policy would not be pursued.

32 Water quality improvement projects, including water treatment plants, conveyance facilities, and wells
33 and wellhead treatment facilities would be less emphasized relative to the Proposed Project, and greater
34 emphasis would be placed on the construction and operation of wastewater treatment and recycle
35 facilities, and municipal stormwater treatment facilities.

36 Flood risk reduction would place greater emphasis on levee modification/maintenance and dredging than
37 the Proposed Project, but there would be no setback levees or subsidence reversal projects. Floodplain
38 expansion projects would be fewer or less extensive, as would reservoir reoperation. Actions to protect
39 and enhance the Delta as an evolving place would be consistent with the Economic Sustainability Plan,
40 but the locations for new parks, as encouraged by the Proposed Project, would not be emphasized.

1 **14.5.6.1.1 Impact 14-1: Create a Significant Hazard to the Public or the Environment Through the**
2 **Routine Transport, Use, or Disposal of Hazardous Materials or Through Reasonably**
3 **Foreseeable Upset and Accident Conditions Involving the Release of Hazardous**
4 **Materials into the Environment**

5 The types of project impacts described for the Proposed Project would occur under Alternative 1B;
6 however, the potential impacts from hazardous material spills would be reduced under Alternative 1B
7 because of the reduction in construction of projects related to water supply reliability, such as
8 groundwater projects, ocean desalination projects, recycled wastewater and stormwater projects. A
9 reduction in the number of facilities constructed would reduce the potential for the release of hazardous
10 materials during construction and operation. Construction impacts associated with ecosystem restoration
11 activities also would be reduced because fewer of those activities would be conducted or facilities
12 constructed, although an increase in nonnative invasive species management could result in increase
13 herbicide use. These reductions in impacts are primarily related to construction activities, which would
14 generate only temporary and limited impacts even under the Proposed Project. The difference between the
15 alternative and the Proposed Project is thus not large.

16 Impacts associated with levee modification and dredging would increase in comparison to the Proposed
17 Project because of the greater emphasis placed on these activities under Alternative 1B.

18 On balance, significant adverse impacts related to hazards and hazardous materials under Alternative 1B
19 would likely be approximately the **same as** under the Proposed Project.

20 As compared to existing conditions, the impacts related to hazards and hazardous materials under
21 Alternative 1B would be **significant**.

22 **14.5.6.1.2 Impact 14-2: Be Located on a Site Which Is Included on a List of Hazardous Materials**
23 **Sites Compiled Pursuant to Government Code, Section 65962.5 and, as a Result, Would**
24 **Create a Significant Hazard to the Public or the Environment**

25 Potential impacts on due to release of materials from contaminated sites would be reduced relative to the
26 Proposed Project under Alternative 1B for the same reasons described above for Impact 14-1.

27 Overall, significant adverse impacts related to contaminated sites under Alternative 1B would be
28 approximately the **same as** under the Proposed Project because the construction of fewer facilities would
29 reduce potential to encounter contaminated sites.

30 As compared to existing conditions, the impacts related to release of hazardous materials under
31 Alternative 1B would be **significant**.

32 **14.5.6.1.3 Impact 14-3: Create Vector Habitat That Would Pose a Significant Public Health Hazard**

33 Vector-related impacts would be reduced under Alternative 1B relative to the Proposed Project because of
34 the reduction in projects (e.g., wetland and floodplain restoration) that could produce vector habitat.
35 Impacts associated with projects and actions conducted in support of water supply reliability, water
36 quality improvement, and Delta enhancement under Alternative 1B would likely be the same as the
37 Proposed Project.

38 Overall, significant adverse impacts related to vectors under Alternative 1B would be **less than** under the
39 Proposed Project.

40 As compared to existing conditions, the impacts related to vectors under Alternative 1A would be
41 **significant**.

1 **14.5.6.1.4 Impact 4-4: Increase Safety Hazards Due to Emissions or Handling of Hazardous**
2 **Materials, Substances, or Waste Within 0.25 Mile of an Existing or Proposed School**

3 The potential for impacts associated with increased safety hazards due to emissions or handling of
4 hazardous materials within 0.25 mile of a school would be reduced under Alternative 1A relative to the
5 Proposed Project because of the reduction in projects related to water supply reliability, such as
6 groundwater projects, ocean desalination projects, recycled wastewater and stormwater projects. The
7 potential impacts associated with flood risk reduction activities, such as levee modification and dredging
8 would be increased, could increase under Alternative 1B and result in a greater potential for operations
9 within 0.25 mile of a school.

10 On balance, significant adverse impacts related to emissions and handling of hazardous materials near a
11 school under Alternative 1B would likely be approximately the **same as** under the Proposed Project.

12 As compared to existing conditions, the impacts related to emissions and handling of hazardous materials
13 near a school under Alternative 1B would be **significant**.

14 **14.5.6.1.5 Impact 4-5: Increase Safety Hazards for People Residing in or Working in the Project**
15 **Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or Within**
16 **2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards**

17 The impacts of projects or activities conducted under Alternative 1B within the area of a private airstrip,
18 airport land use plan or within 2 miles of a public or public use airport would likely be same as the
19 Proposed Project because of the consistency requirements of airport land use plans. Actions that create
20 conditions that attract birds (e.g., wetland and floodplain restoration) that could collide with aircraft using
21 a nearby airport could be decreased under Alternative 1B because fewer acres of these types of attractants
22 would be constructed.

23 Overall, significant adverse impacts related to increased safety hazards near an airport under
24 Alternative 1A would be **less than** under the Proposed Project.

25 As compared to existing conditions, the impacts related to increased safety hazards near an airport under
26 Alternative 1A would be **significant**.

27 **14.5.6.1.6 Impact 4-6: Expose People or Structures to a Significant Risk of Loss, Injury, or Death**
28 **Involving Wildland Fires**

29 The construction of water supply and water quality improvement facilities in fire-prone areas could
30 expose people and structures to wildland fires. Under Alternative 1B, facilities that would include
31 structures and require staff on site for operation would similar to that of the Proposed Project. Like the
32 Proposed Project, ecosystem restoration, flood risk reduction, and Delta enhancement projects would not
33 likely be constructed in fire-prone areas, and therefore would be expected to expose people or structures
34 to wildland fires.

35 Overall, significant adverse impacts resulting from exposure of people and structures to wildland fire
36 under Alternative 1A would be the **same as** under the Proposed Project.

37 As compared to existing conditions, the impacts related to increased safety hazards near an airport under
38 Alternative 1A would be **significant**.

39 **14.5.6.2 Mitigation Measures**

40 Mitigation measures for impacts associated with Alternative 1B would be the same as those described for
41 the Proposed Project in Sections 14.5.3.6.1 (Mitigation Measure 14-1), 14.5.3.6.2 (Mitigation
42 Measure 14-2), 14.5.3.6.3 (Mitigation Measure 14-3), 14.4.3.6.4 (Mitigation Measure 14-4), 14.5.3.6.5
43 (Mitigation Measure 14-5), 14.5.3.6.6 (Mitigation Measure 14-6), and 15.5.3.6.7 (Mitigation

1 Measure 14-7). Because it is not known whether the mitigation measures listed above would reduce
2 impacts to a less-than-significant level for Alternative 1B, these potential impacts are considered
3 **significant and unavoidable.**

4 14.5.7 Alternative 2

5 As described in Section 2A, Proposed Project and Alternatives, Alternative 2 would place greater
6 emphasis on groundwater, ocean desalination, water transfers, water use efficiency and conservation, and
7 recycled water projects and less emphasis on surface water projects. The surface storage reservoirs
8 considered under the DWR Surface Water Storage Investigation would not be encouraged; instead, the
9 surface storage in the Tulare Basin would be emphasized. Ecosystem restoration projects similar to, but
10 less extensive than those encouraged by the Proposed Project, would be emphasized without the
11 requirement to conform to the ERP habitat types and elevation map. Alternative 2 would emphasize the
12 development of flow objectives that take into consideration updated flow criteria that support a more
13 natural flow regime, water rights, and greater protection of public trust resources.

14 Actions to improve water quality would be similar to or greater than the Proposed Project, especially the
15 treatment of wastewater and agricultural runoff. Actions to reduce flood risk under Alternative 2 would
16 emphasize floodplain expansion and reservoir reoperation rather than levee construction and
17 modification. The stockpiling of materials and encouragement of subsidence reversal projects would be
18 the same as the Proposed Project, as would actions to protect and enhance the Delta as an evolving place.

19 14.5.7.1.1 Impact 14-1: Create a Significant Hazard to the Public or the Environment Through the 20 Routine Transport, Use, or Disposal of Hazardous Materials or Through Reasonably 21 Foreseeable Upset and Accident Conditions Involving the Release of Hazardous 22 Materials into the Environment

23 Under Alternative 2, there would be more construction of groundwater, ocean desalination, and recycled
24 water facilities, potentially increasing the risk of spills of hazardous materials during construction than
25 under the Proposed Project. Because Alternative 2 would not encourage surface storage at the locations
26 considered by the DWR Surface Water Storage Investigation, the significant impacts due to spills of
27 hazardous materials that could result from construction of these large surface water storage projects
28 would not occur. However, the creation of surface storage in the Tulare Basin, as emphasized under
29 Alternative 2, would result in similar construction-related impacts due to spills of hazardous materials.

30 Projects to improve water quality under Alternative 2 could result in construction and operation of more
31 wastewater treatment and recycle facilities, and agricultural runoff treatment facilities and features. The
32 construction and operation of water treatment plants, wells, wellhead treatment facilities, and municipal
33 stormwater treatment facilities could result in greater impact due to spills of hazardous materials than
34 under the Proposed Project. However, the reduction in levee construction, modification, and maintenance
35 under Alternative 2 could reduce the potential impacts of hazardous waste spills.

36 On balance, significant adverse impacts related to hazards and hazardous materials under Alternative 2
37 would be about the **same as** under the Proposed Project.

38 As compared to existing conditions, the impacts related to hazards and hazardous materials under
39 Alternative 1B would be **significant**.

1 **14.5.7.1.2 Impact 14-2: Be Located on a Site Which Is Included on a List of Hazardous Materials**
2 **Sites Compiled Pursuant to Government Code, Section 65962.5 and, as a Result, Would**
3 **Create a Significant Hazard to the Public or the Environment**

4 The same types of impacts described for the Proposed Project would occur under Alternative 2. While the
5 mix of the types of facilities would be different, the potential for impacts resulting from encountering a
6 hazardous material site would likely be about the same.

7 Overall, significant adverse impacts related to release of hazardous materials under Alternative 2 would
8 be about the **same as** under the Proposed Project.

9 As compared to existing conditions, the impacts related to release of hazardous materials under
10 Alternative 2 would be **significant**.

11 **14.5.7.1.3 Impact 14-3: Create Vector Habitat That Would Pose a Significant Public Health Hazard**

12 Under Alternative 2, there would be more construction of groundwater, ocean desalination, and recycled
13 water facilities, potentially increasing the risk of ponded water that could increase vector (mosquito)
14 populations than under the Proposed Project. Because Alternative 2 would not encourage surface storage
15 at the locations considered by the DWR Surface Water Storage Investigation, the significant impacts due
16 to large areas of inundation as a result of these large surface water storage projects would not occur.
17 However, creation of surface water storage in the Tulare Basin, as emphasized under Alternative 2, would
18 similarly inundate thousands of acres, and could cause an increase in vectors. Overall, the area inundated
19 by large water storage projects would be similar to under the Proposed Project.

20 Projects to improve water quality under Alternative 2 could result in construction and operation of more
21 wastewater treatment and recycle facilities, and agricultural runoff treatment facilities and features. The
22 construction and operation of water treatment plants, wells, wellhead treatment facilities, and municipal
23 stormwater treatment facilities could result in greater impact due to vectors than under the Proposed
24 Project.

25 Overall, significant adverse impacts related to vectors under Alternative 2 would be **greater than** under
26 the Proposed Project.

27 As compared to existing conditions, the impacts related to vectors under Alternative 2 would be
28 **significant**.

29 **14.5.7.1.4 Impact 4-4: Increased Safety Hazards Due to Emissions or Handling of Hazardous**
30 **Materials, Substances, or Waste Within 0.25 Mile of an Existing or Proposed Schools**

31 Under Alternative 2, the mix of water supply projects would shift surface water facilities to more
32 construction of groundwater, ocean desalination, and recycled water facilities. The overall number of
33 water supply facilities posing a hazardous material risk constructed under Alternative 2 would not likely
34 be substantially different than under the Proposed Project. Therefore, the potential to increase safety
35 hazards for nearby schools would be about the same for the Proposed Project.

36 Projects to improve water quality under Alternative 2 could result in more wastewater treatment and
37 recycle facilities, and agricultural runoff treatment facilities and features. The construction and operation
38 of water treatment plants, wells, wellhead treatment facilities, and municipal stormwater treatment
39 facilities under Alternative 2 also could increase the potential for emissions or spills to occur within
40 0.25 mile of a school.

41 Flood risk reduction projects described in Section 14.5.3.4, including construction of levees in the Delta,
42 may be less likely under Alternative 2 because flood risk management would emphasize floodplain
43 expansion and dam operations more than the Proposed Project. The reduction in levee construction,

1 modification, and maintenance under Alternative 2 would decrease the potential for emissions or spills to
2 occur within 0.25 mile of a school.

3 On balance, significant adverse impacts related to emissions and handling of hazardous materials near a
4 school under Alternative 2 likely would be the **same as** under the Proposed Project.

5 As compared to existing conditions, the impacts related to emissions and handling of hazardous materials
6 near a school under Alternative 2 would be **significant**.

7 14.5.7.1.5 Impact 4-5: Increased Safety Hazards for People Residing in or Working in the Project 8 Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or Within 9 2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards

10 The impacts of projects or activities conducted under Alternative 2 within the area of a private airstrip,
11 airport land use plan or within 2 miles of a public or public use airport would likely be same as the
12 Proposed Project because of the consistency requirements of airport land use plans. Actions that create
13 conditions that attract birds (e.g., wetland restoration) that could collide with aircraft using a nearby
14 airport could be decreased under Alternative 2 because fewer acres of these types of attractants would be
15 constructed in the Delta. However, the placement of surface water storage in the Tulare Lake Basin could
16 serve as an attractant to migratory waterfowl.

17 Overall, significant adverse impacts on airport safety under Alternative 2 would likely be about the **same**
18 **as** under the Proposed Project.

19 As compared to existing conditions, the impacts related to safety hazards near an airport under
20 Alternative 2 would be **significant**.

21 14.5.7.1.6 Impact 4-6: Expose People or Structures to a Significant Risk of Loss, Injury, or Death 22 Involving Wildland Fires

23 The construction of water supply and water quality improvement facilities in fire-prone areas could
24 expose people and structures to wildland fires. Under Alternative 2, facilities that would include
25 structures and require staff on site for operation would be similar to that of the Proposed Project. Like the
26 Proposed Project, ecosystem restoration, flood risk reduction, and Delta enhancement projects would not
27 likely be constructed in fire-prone areas, and therefore would be expected to expose people or structures
28 to wildland fires.

29 Overall, significant adverse impacts resulting from exposure of people and structures to wildland fire
30 under Alternative 2 would be the **same as** under the Proposed Project.

31 As compared to existing conditions, the impacts related to increased safety hazards near an airport under
32 Alternative 2 would be **significant**.

33 14.5.7.2 Mitigation Measures

34 Mitigation measures for impacts associated with Alternative 2 would be the same as those described for
35 the Proposed Project in Sections 14.5.3.6.1 (Mitigation Measure 14-1), 14.5.3.6.2 (Mitigation Measure
36 14-2), 14.5.3.6.3 (Mitigation Measure 14-3), 14.4.3.6.4 (Mitigation Measure 14-4), and 14.5.3.6.5
37 (Mitigation Measure 14-5). Because it is not known whether the mitigation measures listed above would
38 reduce impacts to a less-than-significant level for Alternative 2, these potential impacts are considered
39 **significant and unavoidable**.

1 14.5.8 Alternative 3

2 As described in Section 2A, Proposed Project and Alternatives, the water supply reliability projects and
3 actions under Alternative 3 would be similar to those of the Proposed Project, although there would be
4 less emphasis on surface water projects, and those would focus on storage. Ecosystem restoration
5 (floodplain restoration, riparian restoration, tidal marsh restoration, and floodplain expansion) would be
6 reduced relative the Proposed Project, and restoration on publicly owned lands, especially in Suisun
7 Marsh and the Yolo Bypass, would be emphasized. There would be more stressor management actions
8 (e.g., programs for water quality, water flows) and more management for nonnative invasive species.
9 Water quality improvements would be the same as for the Proposed Project. Actions under Alternative 3
10 to reduce flood risk would not include setback levees or subsidence reversal, but would result in greater
11 levee modification/maintenance and dredging relative to the Proposed Project. Reservoir reoperation and
12 materials stockpiling would be the same as the Proposed Project, as would activities to protect and
13 enhance the Delta as an evolving place.

14 14.5.8.1.1 Impact 14-1: Create a Significant Hazard to the Public or the Environment Through the 15 Routine Transport, Use, or Disposal of Hazardous Materials or Through Reasonably 16 Foreseeable Upset and Accident Conditions Involving the Release of Hazardous 17 Materials into the Environment

18 With the exception of the surface water storage projects named in the Delta Plan, a similar number of
19 water supply reliability facilities (groundwater, ocean desalination, and recycled water facilities) would be
20 constructed under Alternative 3 and under the Proposed Project. The potential for localized spills of
21 hazardous materials during construction of these types of projects would be similar to the Proposed
22 Project, but there would be potentially fewer impacts during construction of surface water storage
23 projects. Potential impacts during ecosystem restoration activities would be less under Alternative 3 than
24 under the Proposed Project because restoration activities would be less extensive.

25 Water quality improvement projects constructed under Alternative 3 as under the Proposed Project would
26 be about the same as the Proposed Project, as would the potential for localized spills of hazardous
27 materials. Actions under Alternative 3 to reduce flood risk would not include setback levees or subsidence
28 reversal, but would result in greater levee modification/maintenance and dredging relative to the Proposed
29 Project and would therefore increase the potential for hazardous waste spills.

30 Overall, significant impacts related to hazards and hazardous materials under Alternative 3 would be
31 about the **same as** those under the Proposed Project.

32 As compared to existing conditions, the impacts related to hazards and hazardous materials under
33 Alternative 3 would be **significant**.

34 14.5.8.1.2 Impact 14-2: Be Located on a Site Which Is Included on a List of Hazardous Materials 35 Sites Compiled Pursuant to Government Code, Section 65962.5 and, as a Result, Would 36 Create a Significant Hazard to the Public or the Environment

37 Potential impacts resulting from the release of materials from contaminated sites during construction of
38 water supply reliability projects and actions under Alternative 3 would likely be the same as the Proposed
39 Project because a similar number of water supply reliability facilities (groundwater, ocean desalination,
40 and recycled water facilities) would be constructed. However, because there would be less emphasis on
41 surface water storage projects, the potential for encountering a hazardous waste site and releasing
42 hazardous materials during construction would be less than under the Proposed Project because a reduced
43 area would be affected.

1 Water quality improvement projects constructed under Alternative 3 would be about the same as under
2 the Proposed Project, thus the potential to encounter a hazardous waste site would be about the same.
3 Actions under Alternative 3 to reduce flood risk would not include setback levees or subsidence reversal,
4 but would result in greater levee modification/maintenance and dredging relative to the Proposed Project
5 and would therefore increase the footprint of construction activities and the potential for encountering a
6 contaminated site.

7 Overall, significant impacts related to hazards and hazardous materials under Alternative 3 would be
8 about the **same as** under the Proposed Project.

9 As compared to existing conditions, the impacts related to hazards and hazardous materials under
10 Alternative 3 would be **significant**.

11 14.5.8.1.3 Impact 14-3: Create Vector Habitat That Would Pose a Significant Public Health Hazard

12 Vector-related impacts under Alternative 3 would be the same as the Proposed Project because a similar
13 number of water supply reliability facilities that have the potential to create vector habitat would be
14 constructed under Alternative 3. However, because there would be less emphasis on surface water storage
15 projects, the potential for impacts caused by vectors would be less than under the Proposed Project
16 because there would be less area inundated that could serve as mosquito breeding habitat.

17 Water quality improvement projects constructed under Alternative 3 and their potential to pose a health
18 hazard would be about the same as under the Proposed Project, resulting in the same level of impact.
19 Actions under Alternative 3 to reduce flood risk would not include setback levees or subsidence reversal,
20 but would result in greater levee modification/maintenance and dredging relative to the Proposed Project.
21 However, this would result in little change in the amount of mosquito breeding habitat that would be
22 created.

23 Overall, significant adverse impacts related to vectors under Alternative 3 would be **less than** under the
24 Proposed Project.

25 As compared to existing conditions, the impacts related to vectors under Alternative 3 would be
26 **significant**.

27 14.5.8.1.4 Impact 4-4: Increase Safety Hazards Due to Emissions or Handling of Hazardous 28 Materials, Substances, or Waste Within 0.25 Mile of an Existing or Proposed School

29 A similar number of water supply reliability facilities would likely be constructed under Alternative 3 as
30 under the Proposed Project; therefore, the likelihood of construction activities occurring within 0.25 mile
31 of a school would be about the same, as would the potential for emissions or spills that could affect a
32 school. The potential for construction and operations activities that have the potential to result in the
33 emission of hazardous materials near a school, however, might be reduced because fewer large water
34 supply projects would be implemented.

35 Water quality improvement projects constructed under Alternative 3 would be about the same as under
36 the Proposed Project, resulting in the same potential for emissions or spills to occur within 0.25 mile of a
37 school. Ecosystem restoration actions under Alternative 3 would be reduced in comparison to the
38 Proposed Project, which might reduce construction activities that could create emissions or spills of
39 hazardous materials. However, ecosystem restoration actions would not be expected to occur near urban
40 areas and the likelihood of construction near a school is low. Actions under Alternative 3 to reduce flood
41 risk would not include setback levees or subsidence reversal, but would result in greater levee
42 modification/maintenance and dredging relative to the Proposed Project. These actions could result in a
43 higher likelihood of construction activities near urban areas and the potential for emissions or spills to
44 occur within 0.25 mile of a school.

1 On balance, significant adverse impacts related to emissions and handling of hazardous materials near a
2 school under Alternative 3 would likely be about the **same as** under the Proposed Project.

3 As compared to existing conditions, the impacts related to emissions and handling of hazardous materials
4 near a school under Alternative 3 would be **significant**.

5 **14.5.8.1.5 Impact 4-5: Increased Safety Hazards for People Residing in or Working in the Project**
6 **Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or Within**
7 **2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards**

8 The impacts of projects or activities conducted under Alternative 3 within the area of a private airstrip,
9 airport land use plan or within 2 miles of a public or public use airport would likely be same as the
10 Proposed Project because of the consistency requirements of airport land use plans. Actions that create
11 conditions that attract birds (e.g., wetland restoration) that could collide with aircraft using a nearby
12 airport could be decreased under Alternative 3 because fewer acres of these types of attractants would be
13 constructed in the Delta.

14 Overall, significant adverse impacts on airport safety under Alternative 3 would likely be **less than** under
15 the Proposed Project.

16 As compared to existing conditions, the impacts related to safety hazards near an airport under
17 Alternative 3 would be **significant**.

18 **14.5.8.1.6 Impact 4-6: Expose People or Structures to a Significant Risk of Loss, Injury, or Death**
19 **Involving Wildland Fires**

20 The construction of water supply and water quality improvement facilities in fire-prone areas could
21 expose people and structures to wildland fires. Under Alternative 3, facilities that would include
22 structures and require staff on site for operation would be similar to that of the Proposed Project. Like the
23 Proposed Project, ecosystem restoration, flood risk reduction, and Delta enhancement projects would not
24 likely be constructed in fire-prone areas, and therefore would be expected to expose people or structures
25 to wildland fires.

26 Overall, significant adverse impacts resulting from exposure of people and structures to wildland fire
27 under Alternative 3 would be the **same as** under the Proposed Project.

28 As compared to existing conditions, the impacts related to increased safety hazards near an airport under
29 Alternative 3 would be **significant**.

30 **14.5.8.2 Mitigation Measures**

31 Mitigation measures for impacts associated with Alternative 3 would be the same as those described for
32 the Proposed Project in Sections 14.5.3.6.1 (Mitigation Measure 14-1), 14.5.3.6.2 (Mitigation
33 Measure 14-2), 14.5.3.6.3 (Mitigation Measure 14-3), 14.4.3.6.4 (Mitigation Measure 14-4), and
34 14.5.3.6.5 (Mitigation Measure 14-5). Because it is not known whether the mitigation measures listed
35 above would reduce impacts to a less-than-significant level for Alternative 3, these potential impacts are
36 considered significant and unavoidable.

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